Quality monitoring in laser welding has always been a difficult task. The unmatched productivity of a properly tuned laser welding process demands high-speed, in-process observation. While previous generation photodiode monitors were considered finicky and difficult to maintain and rely on, an entirely new generation of process monitoring tools based on Inline Coherent Imaging are promising direct, geometrical measurement of the process that can be directly compared to design intent. This talk will provide an overview of the unprecedented, multifactor monitoring capabilities of these tools now available from IPG Photonics.

Paul Webster is the General Manager & CTO of IPG Photonics (Canada) Inc. He completed his doctoral degree with James Fraser at Queen’s University in 2012. There he held an Alexander Graham Bell Canada Graduate Scholarship and was awarded the 2012 Martin Walmsley Fellowship for Technical Entrepreneurship. He is an inventor of the patented ICI laser weld monitoring technology which he commercialized as the CTO of Laser Depth Dynamics before it was purchased by IPG Photonics in 2017.
Well, it is March and the year is rolling along – let the madness begin. Some great events are on the horizon with Ladies night in April and the March Tech Meeting where we will recognize our Patron’s coming up in 2 weeks.

The Sheet Metal Welding Conference committee is hard at work creating a great event for Fall of 2018. It is one of our keystone events and as always, if you have an interest in participating with any of the activities we work on, please contact me directly or any of the other officers.

I am down to the last three months as chairman and am in the search for a grass roots activity where we can help a student or someone with a project that is trying to give back to the community. If you have someone or something, be it a student working to fabricate something for their school, or in some way volunteer let me know as I may be able to help them with funding or even volunteer some time. During my time as chairman in 2015/16 I was able to use some of the funds to support Women Who Weld with supplies and gear to get one of their classes going. Our section makes a conscience effort each year to find some kind of unique local project to help thru the generosity of all of you who contribute your time and funding.

Thank you, have great month, the snow is almost done.

Wes

Ladies Night Update!

Ladies night tables are selling at a steady pace. Please book your tables and rooms as soon as possible. This will help us more accurately plan on gifts and door prizes. Any remaining rooms in our hotel block will be returned to the MotorCity Casino Hotel on March 15. People who book rooms later than March 15 will pay full price for their rooms. If the second block of rooms is booked up before then, please contact me at mark.gugel@gm.com. I should be able to add more rooms, but the closer we are to March 15, the more difficult it will be.
A Letter from the Scholarship Committee Chair

For many years, the AWS-Detroit Section has been committed to supporting education as an integral part of fulfilling our mission statement. The educational activities we as a section support include our annual high school welding contest, the biennial Sheetmetal Welding Conference and our scholarship program. As with all things the section accomplishes, it would not be possible were it not for the dedication of our volunteers, the support of our partners in industry, and the various educational organizations and students that all come together and contribute to build a better welding industry for all of us.

For the academic year 2017/18 the section was able to award 38 scholarships totaling $60,000 to candidates from 9 different schools. This year, one of those awardees could be you. If you are enrolled in a welding class or are in any other welding program for 2018-2019 for academic school year, you may be eligible for a variety of scholarships. These would include the AWS-Detroit section Scholarships, AWS-Detroit section Named Scholarships, AWS District-11 Scholarships and the AWS-National Foundation Scholarships, which includes a special scholarship offer from Praxair.

You can find more information about the AWS-Detroit and Praxair scholarship application process, and determine your eligibility at our website www.aws detroit.org - Just click on the ‘Scholarships’ tab. The application deadline is April 1, 2018. Again this year we have an interactive on-line application – I would encourage everyone to take advantage of it. Please note that the on-line form cannot be saved – You must fill it out completely in one setting.

All information concerning AWS District and National awards can be found at www.aws.org/about/page/scholarships.

As chair of the AWS-Detroit scholarship committee I would encourage everyone to stay committed and focused on your education. The possibilities are bright within our industry, so to anyone who thinks that they may be eligible I would not delay in sending in your application - You never know what might happen.

Thanks again for your support of our efforts,
Donald F. Maatz, Jr.
Chair - AWS-Detroit scholarship committee
The contest will be limited to 70 contestants. The first 10 schools to register will be allowed 7 seats each. If we do not reach capacity, those schools enrolled may be allowed additional seats.

**CONTEST:** Phase 1 – Written Exam; Phase 2 – Cutting Project; Phase 3 – Welding Projects

**ELIGIBILITY:** High School Seniors enrolled in a vocational welding program

**DEADLINE:** Registration form (below) must be emailed to Glenn Kay @ gkayii@wccnet.edu no later than April 1, 2018 or the application will not be accepted. This deadline is critical to allow time to prepare for the event.

**AWARDS:** First place: $2,500.00 Scholarship, Trophy & School Plaque; Second place: $2,000.00 Scholarship, Trophy & School Plaque; Third place: $2,000.00 Scholarship, Trophy & School Plaque; Fourth place: $1,500.00 Scholarship, Trophy & School Plaque; Fifth place: $1,000.00 Scholarship, Trophy & School Plaque

Scholarships are one-time awards and will be paid to the award winner’s college of choice to cover tuition, fees, books and supplies when pursuing a certificate or degree in welding in the 2018/2019 academic year. Final scholarships requests must take place by March 1, 2019.

**PRIZES:** All contestants will receive an AWS tee shirt. Educational and professional welding equipment will also be distributed to the top 12 finalists as donations permit. Typical prizes distributed have been welding machines, torch outfits, welding helmets, jackets, gloves, safety glasses, cutting shields, etc.

**MEALS:** Both breakfast and lunch will be provided. Bagels, donuts and juice will be served upon arrival as well as pizza and pop for lunch, all compliments of the AWS Detroit Section!

**CONTEST DETAILS:** The welding contest is divided into three (3) phases. All three phases listed below will be part of the student’s final score and used to determine the top 12 finalists. Upon competition day, the phases may be arranged in a different order dependent upon the number of schools enrolled.

**Phase 1: Written Exam** Each contestant will be given a written exam to test their basic knowledge in the following areas: OFW (Oxy-Fuel Welding), OFC (Oxy-Fuel Cutting), Brazing, SMAW (Shielded Metal Arc Welding), GMAW (Gas Metal Arc Welding), FCAW (Flux Core Arc Welding) and GTA (Gas Tungsten Arc Welding) processes.

**Phase 2: Cutting Project** Project may include straight cuts, bevel cuts, and shape cutting on 1/4", 3/8" or 1/2" carbon steel. This project will require print reading and layout skills.

**Phase 3: Welding Projects** Projects may include fillet & groove welds on carbon steel and aluminum (plate or pipe) in the flat, horizontal, vertical and overhead positions. The use of SMAW, GMAW, GTAW, FCAW and OFC processes may be applied to the various projects that will be distributed during orientation. Print reading and layout skills will also be required.

**Required Safety Gear & Tools:** Each student is required to bring the following Personal Protective Equipment (PPE). PPE items will not be supplied; failure to bring these items will result in the student being unable to compete.

- All leather welding gloves (appropriate gloves for each of the processes listed)
- Welding helmet (minimum shade #10)
- Welding jacket (leather preferred)
- Cutting glasses/shield or goggles (minimum shade #5)
- Safety glasses with side shields
- All leather above the ankle work boots

In addition to the required PPE, each student is required to bring their own tools for the projects listed above. Your tool list may include: tape measure, combination square, protractor, compass, scribere, chisel, wire cutters, clamps, hammer, wire brush, chipping hammer, etc. **No power tools will be permitted.**

**Instructor/Advisor Participation:** Each school attending will need to have an instructor/advisor competent in the area of welding as they will be charged with conducting the scoring for the student projects (same as we did last year). By doing this, there may be an opportunity to obtain CEU’s towards your CWI maintenance requirements.

Once completed, email the registration form to Glenn Kay @ gkayii@wccnet.edu by the submission deadline, April 1, 2018. Please complete all fields below or your form will not be accepted. Should you have any questions about this form or the contest itself, please feel free to reach out to Glenn Kay via email for assistance.
So, you decided you were going to take a shot at this CWI thing. After all, you've been around welding for some time now. Maybe you were even a welder for a while and you've even met a few CWI's and they don't seem much different than you. “I can do this,” you said to yourself, so you signed up for an AWS CWI Seminar, paid close attention to the instructor during the seminar, did all your homework, studied every night, took the exam at the end of the week-long seminar and then...you waited for the results from Miami. After what seemed like an eternity (not really though), you finally get the results and CONGRATULATIONS!!!! You passed. What a great feeling and a relief to know all your hard work and studies paid off. Now that that’s over and out of the way, the rest is all downhill from here, right? WRONG!!! This is when the learning process really begins.

I'm not trying to scare anyone away from becoming an AWS CWI, on the contrary. I absolutely love my career, I'm just trying to give you some advice by saying don't go at this alone. Maybe you work for a company where you're one of several CWI's on staff. If that's the case you probably already have a solid support network. But if you're the first at your company, or maybe you're independent, you should start building your support network right away. I mean don't wait until you can't figure something out and you need an answer right away. That's not the right time to start asking random people for help and hoping someone in the crowd knows what you're talking about. You can start reading the Inspection Trends magazine from AWS and even look through back issues, that's a good start and a great tool. You can also ask questions of your peers on the AWS member network, which is also a good option. But the best approach in my opinion is to have a good mentor right from the beginning. Someone that you can trust and who will give you their honest and unbiased opinion on your situation. Trust me, I write from experience. As soon as I had my results and told my employer that I was officially an AWS CWI it was like the flood gates opened with questions I couldn’t answer and issues I had no resolutions for. And they just kept pouring in. That was probably within the first three weeks of being an AWS CWI, after all, I was an “expert” now. That's when I truly understood the meaning of the phrase, “You Continued on page 7
Please Ensure AWS Has Your Contact Information Updates

The 2018-2019 AWS Detroit Section Executive Committee Election will be conducted from Sunday, April 1, to noon on Sunday, April 15. A link to the online election ballot will be emailed to Detroit Section Members with valid email addresses in the AWS National member database at the March 9th report.

If you need to update the contact information AWS has on file, please act quickly so the update is reflected in the March report. Changes can be made directly through the www.aws.org website by clicking the MY ACCOUNT tab at the top right corner of the webpage. You can also contact AWS Member services at: 800-443-9353 or 305-443-9353. Updates or an email address to be used only for the purposes of this ballot can be sent to: secretary@awsdetroit.org before April 13th.

Co-op Welding Students, Summer Interns and Part-time Welders
Contact Pat Bell: patricia.bell@detroitk12.org or (313) 282-8171 in Detroit

Now What Do I Do?
continued from page 6

don’t know what you don’t know.” But I was lucky. The instructor that taught the seminar I took gave us his email address and told us that if we had any questions after passing the CWI exam we could contact him. I dug out his email address and quickly reached out. He answered immediately, congratulated me for passing and proceeded to talk me through my many questions and issues. What a lifesaver he was, that’s what a great mentor does. I learned after that experience that I was going to need support in this new role of mine, and lots of it. Over the years I’ve contacted him more times than I could keep track of on dozens of questions. Sometimes they were just “gut checks,” where I thought I had the right answer, but just needed someone with more experience to confirm. Other times, I had absolutely no clue, yet each time my mentor answered with a great deal of detail, fully explaining his answer and backing it up with references. Eventually I even started serving on the same AWS national committee and sub-committees he served and chaired, and through all of that we became great friends. I just cannot overstate the importance of seeking out strong mentorship, because my mentor has taught me so much, helped me grow my support network and has made me a better CWI. Al Moore is my mentor, who’s yours?

If you’re not already an AWS CWI and the idea of becoming a CWI is a career that you would like to pursue, the AWS-Detroit Section is hosting two AWS CWI Seminars/Exams this year. The seminar/exam dates and location are as follows:

CWI Seminar June 3-8, 2018 / Exam June 9, 2018
CWI Seminar September 30-October 5, 2018/Exam October 6, 2018
Washtenaw Community College
4800 E. Huron River Dr.
Ann Arbor, MI, 48105-4800

Check the AWS-Detroit e-Bulletin often for other helpful information, at www.awsdetroit.org. For more information on how to become properly trained and certified by the American Welding Society and to register, you can visit www.aws.org/certification.
2018 Coming Events

March 15
Patron’s Night Meeting
IPG Photonics/AWS
46695 Magellan Dr.
Novi, MI

April 14
Ladies Night
AWS Detroit
Motor City Casino

April 15-18
International Brazing and Soldering Conference (IBSC) 2018
AWS Detroit
Doubletree by Hilton – New Orleans, Louisiana

May 2-4
FABTECH Mexico
AWS, FMA, SME, PMA, CCAI
Centro Citibanamex, Mexico City, Mexico

May 11
AWS Detroit High School Welding Contest
AWS Detroit
Washtenaw County Community College

SAVE THE DATE
October 16th, 2018 | Comau LLC, Southfield, Michigan
WELDING AND JOINING WORKSHOP For Automotive Lightweight Materials

October 17th & 18th, 2018 | Laurel Manor, Livonia, Michigan
SHEET METAL WELDING CONFERENCE XVIII
Welding Solutions for Lightweight Vehicle Production

For more information on the SMWC XVIII Conference, visit www.awsdeetroit.org

In Partnership With:

SAVE THE DATE
April 12, 2018
AWS Detroit Section Education Night!

Information Coming Soon

Save the Date!!!
2018 AWS Detroit Section Golf Outing

Thursday July 19th 2018

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- Macro Cross-Sectional Evaluations
- Failure Analysis
- Chemical Analysis

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www.unitedtechnicalinc.com
**AWS President Dale Flood will visit our District April 10-15:** His itinerary is set with visits to four Sections: West Michigan, Northern Michigan, Central Michigan, and Detroit. Details have been provided to each Sections officer so look for a meeting in your area. In addition, Dale will visit four schools: Grand Rapids Community College, Northwest Michigan College, Ferris State University, Lansing Community College West Campus, and Washtenaw Community College. The latter will include the SkillsUSA State Post-Secondary Welding and Fabrication Competition on Friday April 13th. On Saturday evening April 14th President Flood will attend the Detroit Sections Annual Ladies Night event at the Motor City Casino & Hotel. Additional attendees will include the new AWS Executive Director and CEO, Mr. Matt Miller. Tentative plans are being made for a late afternoon meeting on Friday April 13th for interested AWS Section Officers to meet with Mr. Miller for a Q&A session. I will send an invitation once arrangements are confirmed.

**Attention all students:** The deadline for AWS Detroit Section Scholarships is rapidly approaching. For students applying for a scholarship please note:

- Complete all sections of each application, including signatures,
- Attach the necessary supporting documentation

A large number of applications are not fully completed, may be missing a signature, or are missing required documentation so the application cannot be considered.

Information for these Scholarships is located on the Detroit Section Website with deadlines and application forms, go to: [awsdetroit.org](http://awsdetroit.org/)

It is time also for Welding Training Scholarship Applications to be submitted. Information and applications are available at the AWS website [aws.org/foundation/page/scholarships](http://aws.org/foundation/page/scholarships).

These are available for students who will attend a trade school or community college and are not pursuing a degree. The applications are simple but the 2018 requirements are modified from 2017. Applications are to be submitted per the directions provided with the application and are available all year until the $10,000 per District is awarded.

**District Conference - District Director Nominations June 4, 2018**

**Location:** Lansing Community College West Campus.

A full agenda will be sent out prior to the meeting. Each Section Chair has received a package from Rhenda Kenny regarding nominations for District Director for a 2020 through 2023 three year term. AWS has adopted a policy of electing a Director one year in advance of when the office starts for training and coordination with the existing Director. Anyone who wishes to be considered should contact their Section Chair and notify them of their interest. While I am eligible and will serve another term if reelected (I am eligible for one additional term) I want any interested candidates to be considered. A District Nominating Committee will be formed within the next month.

Additional items of interest can be found in Rhenda Kenny’s Monthly Newsletter.

I am asking each Section and Student Section to notify me of meetings and events (including welding competitions, golf outings, and other section activities) as far in advance as possible. I would like to visit each Section, Student Section and any INTERESTED SCHOOL. I can speak on several different subjects if that is of interest to your Section. If you do not have specific dates please provide an approximate time that I can insert as a calendar place holder. Please email or call if you have any questions, Cell: 734-546-4298. I look forward to hearing from you and attending your events.
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