

## NiSource Grant Infuses Safety Training Development at CIVIS

On April 3, 2018, NiSource, Inc., the parent company of NIPSCO, announced the awarding of a \$100,000 grant to Purdue University Northwest’s Center for Innovation through Visualization and Simulation (CIVIS), in furtherance of education and research in first responder and work area safety training.

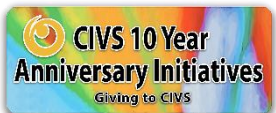
The grant is being used to develop advanced, virtual reality safety training materials for first responders and other employees, to increase their decision-making and safety preparedness and continue to improve employee, customer, and community safety.

The safety training materials being developed take full advantage of CIVIS visualization and virtual reality (VR) technologies and NiSource/NIPSCO professional experience and vision. Dave Monte, NiSource Senior VP of Safety, Environmental, and Training, stated succinctly: “Virtual reality training gets employees’ hearts pumping and mimics what they’ll see in real life—more than what classroom learning offers alone. I’m excited to work more closely with Purdue University Northwest and its students, and that we have this expertise and technology access right here in Northwest Indiana.” [Read more ...](#)



CENTER FOR INNOVATION THROUGH  
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## CIVIS Team Wins Grand Prize in International AIST Video Competition

The CIVIS team captained by graduate research assistant Kyle Toth received the Grand Prize in the AIST Foundation’s 2018 international “Real Steel” Video Challenge, for their entry titled “Steelworkers Today, Tomorrow, and Beyond.” The Grand Prize-winning video will be shown during the President’s Awards Breakfast at the upcoming international

[AISTech 2018 Conference and Exposition](#) held in Philadelphia on May 7–10, 2018, where Toth has also been accepted into the Graduate Student Poster Competition. To view the Grand Prize-winning video in its entirety, as well as other video winners, click [here](#). Toth, who received his B.S. in Electrical Engineering in 2016, is pursuing his master’s degree at PNW, and is President of PNW’s Material Advantage™ Student Chapter. [Read more ...](#)

## Semi-Annual SMSVC Meeting Showcases Research Progress

PNW–Hammond and CIVS hosted 30 steel industry/association professionals, from 11 SMSVC member companies and the AISI, for the spring semi-annual meeting of the Steel Manufacturing Simulation and Visualization Consortium, held April 11-12, 2018. Event highlights included a tour of ArcelorMittal Global R&D in East Chicago, IN; invited dinner talks by PNW Professors Don Gray and Bin Chen; and student presentations on seven technical projects, with accompanying question-and-answer sessions and industry-expert review and input. “Impressive progress” was the phrase most often applied to the presentation quality and the projects themselves. [Read more ...](#)



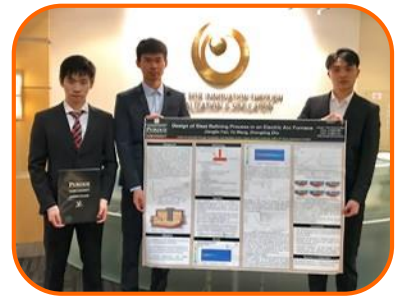
## Zhou Chairs Session, Presents Research at International ASTFE Conference

CIVS Director Dr. Chenn Zhou performed double duty at the annual American Society of Thermal and Fluids Engineers (ASTFE) Conference, held March 4-7, 2018, at Nova Southeastern University in Ft. Lauderdale, FL. On Monday, March 5, Zhou presented SMSVC and CIVS collaborative research via a technical paper, “Analysis of Continuous Caster Flow Pattern Variations Relating to Argon Injection,” while on Tuesday, March 6, she was solo chair for Session II on Multiphase Flow research presentation and discussion. [Read more ...](#)

## CIVS Undergraduate Teams Win Research Awards at 2018 PNW Discovery Day



Two CIVS-mentored undergraduate student teams won research awards at the PNW–Hammond Day of Discovery, on Wednesday, April 4, 2018. Edwin Salazar and Aaron Morgan won the 2nd-Place Award for Undergraduate Oral Presentation, while Zhengting Zhu, Jianglin Fan, and Yu Wang won the 2nd-Place Award for Undergraduate Poster Presentation. [Read more ...](#)



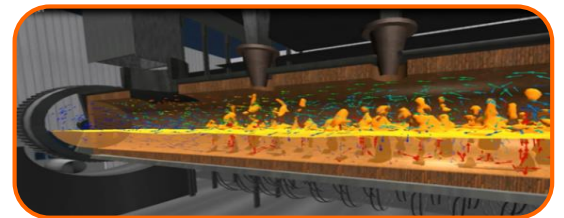
## AIST Electric Arc Furnace Seminar “Upskills” CIVS Researchers

CIVS members Guangwu Tang, Yuchao Chen, and Wenjie Liu were among the 150+ attendees at the Modern Electric Furnace Steelmaking Practical Training Seminar, held February 5-9, 2018, in Memphis, Tennessee. The AIST seminar covered fundamentals and specifics about EAF operation and design. [Read more ...](#)



## CFD Research Results Kindle Interest at TMS 2018

Nearly 4000 presentations and discourses were on slate at the 147th



Annual Meeting of the Minerals, Metals and Materials Society (aka TMS 2018), held March 11-15, 2018, in Phoenix, Arizona, and CIVS students Wenjie Liu and Kaile Tang delivered a pair of serious discussion-generators. [Read more ...](#)





## “One Region” Members See Multiple CIVS Research Benefits

On Friday, April 6, 2018, a nearly 50-member delegation from northwest Indiana’s One Region took in several 3D video presentations and engaged in discussions with CIVS Director Dr. Chenn Zhou, John Moreland, and Kyle Toth about applied CIVS research and the resulting significant economic and development benefits to region and industry. [Read more ...](#)

## Smart Steel Night Debuts at CIVS

PNW’s Department of Electrical & Computer Engineering, CIVS, and Material Advantage™ Student Chapter hosted an evening of advanced steel technology and career-related presentations/opportunities in the CIVS Theater on February 20, 2018. MA Student Chapter President Kyle Toth coordinated the event, at which invited ArcelorMittal professionals Tony Kmitta, Nick Dres, and Chris Thompson provided topic overviews with following Q-and-A sessions. [Read more ...](#)



## CVIS Holds a STEM Night for Girl Scouts ...

More than 30 region girl scouts, from grades 3–5, explored virtual environments and performed virtual activities for the first time during a March 23, 2018, STEM night at PNW and the CIVS facilities. [Read more ...](#)



## and Griffith M.S. Girls

Around 80 young women from Griffith Middle School toured CIVS on January 26, reviewing project results, experiencing virtual reality, and interacting with real-world engineering students. [Read more ...](#)



## AIST and ASM Chapters Foster Student Growth, Opportunities

Monthly dinner meetings with associated technical presentations, organized by regional member chapters of the AIST and ASM, continue to provide CIVS and materials science and engineering students with professional information, networking, and leadership opportunities, as well as additional benefits such as travel grants and more. [Read more ...](#)



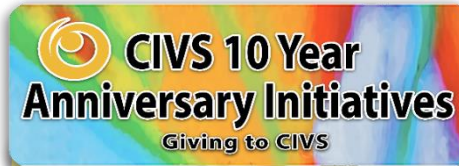
## Student Success Story: Bethany Worl



Bethany Worl, whose work as a CIVS research assistant began as a junior in June 2016, will be graduating from PNW in May 2018 with a B.S. degree in Mechanical Engineering. Bethany has twice been awarded IN Space Grants, once for industrial VR visualization work, and once for research on iron oxide (scale) formation in reheating furnaces. Her capability with the latter led to a “promotion” as a solo presenter at the April 2018 SMSVC semi-annual meeting, *and* to acceptance into the undergraduate presentation competition at the international AISTech 2018 Conference in May 2018. Bethany credits PNW engineering faculty and CIVS mentors with helping her to “ask more questions and to think and see the world as an engineer,” and will pursue a Master’s degree at PNW (Mech. Engineering, thesis option).

## Join Us in Supporting CIVS 10-Year Anniversary Initiatives

CVIS is celebrating 10 amazing years of using advanced technologies to make industries and communities safer, more economically viable, and eco-friendlier. Join us in accomplishing even more! The new PNW fundraising initiative for CIVS, which includes an Endowed Directorship, was launched with great success at PNW's Day of Giving and will continue to increase our impact and sustainability. You can help support and spread the word about our fundraising efforts.



To make a gift, simply click on the "CVIS 10 Year Anniversary Initiatives" button. For further information, please contact Jamie Manahan, Major Gifts Officer, at [jmanahan@pnw.edu](mailto:jmanahan@pnw.edu).



### SMSVC NOTES

#### Fall 2018 Annual Meeting Scheduled for November 14-15, 2018

The AIST Dinner will be on **November 13**.

For more information, please contact us at [civs@pnw.edu](mailto:civs@pnw.edu)

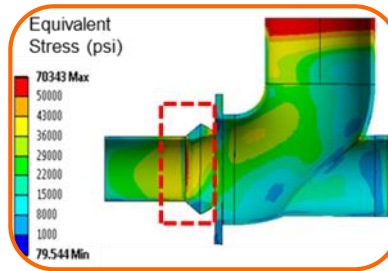
#### SMSVC Accepting New Members

SMSVC is accepting new members. If interested in becoming a member, please contact Ana Jovanovich at [ajovano@pnw.edu](mailto:ajovano@pnw.edu).

For information on the Consortium, visit [steelconsortium.org](http://steelconsortium.org).

## SMSVC Presence to be Abundant at AISTech 2018

With **six** technical papers accepted for presentation (in association with five SMSVC member companies), **three** students accepted for the Undergraduate Student Presentation Competition, and **three** students accepted into the Graduate Student Poster Competition, CIVS and the SMSVC will be well represented at [AISTech 2018](#). Praxair will be hosting SMSVC/CIVS visual and related displays and personnel at **booth #2149** at AISTech 2018, on May 7-10 in Philadelphia, PA. [Read more ...](#)



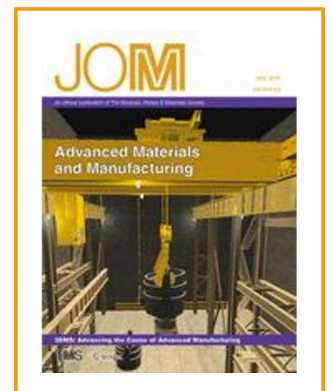
### CVIS Director Commended in Congressional Record

On December 5, 2017, on the floor of the U.S. House of Representatives, CIVS Director Dr. Chenn Zhou, Ivy Tech Community College, and the Society of Innovators of Northwest Indiana and their regional partners were acknowledged and commended "for their truly remarkable contributions to the community of Northwest Indiana and their unwavering commitment to cultivate a culture of innovation."

[Read more ...](#)

### CVIS Virtual Crane Artwork Featured at TMS 2018

CVIS artwork of a virtual crane and ladle, previously selected as cover art for the May 2016 issue of *JOM*, was featured in a display about Materials and Manufacturing Innovation at TMS 2018, March 11-15, in Phoenix, Arizona. [Read more ...](#)



## Facts and Impact (Since 2009)

- \$40+ million savings for companies
- \$17,000,000+ in external grants and contracts
- 110+ external organizations collaborated with CIVS
- 350+ projects
- 370+ national and local news
- 1,480+ students employed and mentored
- 9,700+ students used CIVS for virtual labs
- 110+ Purdue Northwest faculty and staff collaborators
- 128 student awards and grants (globally, since 2011)
- 30,300+ local and global visitors