



CIVS Newsletter

August 2026

"Where Ideas Become Reality"

Issue 43



Congressman Mrvan Learns Latest CIVS & SMSVC Impacts

PNW leadership & CIVS welcomed Congressman Frank Mrvan and his staff to CIVS on July 17. CIVS researchers showcased how federally funded projects have driven innovation in industrial processes, energy efficiency, workplace safety, and more, through the state-of-the-art digital technologies including multi-physics modeling, VR/AR, AI, and 3D Digital Twins.



Rep. Mrvan said *"Thank you for the opportunity to receive an update on the outstanding work being done at CIVS. I enjoyed meeting with students, learning more about the innovative public-private partnerships being fostered at PNW and seeing firsthand the cutting-edge technology that is helping shape the future of American manufacturing."* [Read more...](#)



CENTER FOR INNOVATION THROUGH
VISUALIZATION & SIMULATION

PURDUE
UNIVERSITY
NORTHWEST



2200 169th Street
Hammond, IN 46323

219.989.2765
civs@pnw.edu
www.pnw.edu/civs



CIVS Leads PNW's Role in \$30M Award to Quantum Tech Hub



The Bloch Quantum Tech Hub, led by the Chicago Quantum Exchange, won over \$30 million from the U.S. EDA to build a domestic quantum supply chain. Through the Hub, PNW, led by CIVS will establish a quantum sensing testbed at the Roberts Impact Lab where researchers, entrepreneurs, and industry partners can develop, validate, and demonstrate next-generation sensing technologies. [Read more...](#)

CIVS Recognized at AISTech 2026 with 6 Awards and 10 Papers

Congratulations to CIVS staff and students on the successful participation in AISTech 2026 in Pittsburgh, PA, a premier annual international iron & steel technology conference and exposition with over 9,600 attendees from around the world. [Read more...](#) CIVS won 6 awards including Ladle Best Paper [Read more...](#), 2nd place and 1st & 3rd places for undergraduate and graduate competitions, winner of Real Steel Video Contest, and Material Advantage Travel Grant. Furthermore, CIVS researchers presented 10 technical papers [Read more...](#)



Dr. Tyamo Okosun Promoted to Associate Professor of ME at PNW



Congratulations to Dr. Tyamo (Ty) Okosun (CIVS Associate Director for Research), who was promoted to a tenured Associate Professor of Mechanical Engineering (ME) at PNW, starting August 17, 2026. Ty received his B.S. in ME at PNW in 2009, as well as his M.S.ME and Ph.D. in ME from Purdue West Lafayette in 2012 and 2018, respectively. He has been conducting his research at CIVS since 2009. He currently leads research in ironmaking and electric arc furnace modeling at the Steel Manufacturing Simulation and Visualization Consortium (SMSVC), aimed at developing methods and technologies for improving energy efficiency, reducing waste, minimizing carbon emissions. [Read more...](#)

CIVS/SMSVC AI Research Presented at TMS Specialty Congress

On July 9, CIVS Ph.D. student Shiyu Wang presented at AIM 2026 in Anaheim, CA. AIM is a series conference a part of the TMS Specialty Congress. Her presentation was titled “Accelerated Prediction of EAF Melting Processes Through an XGBoost-Based Reduced-Order Model”. [Read more...](#)



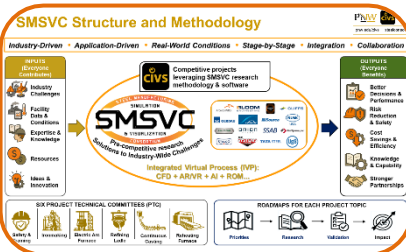
Keynote on EAF CFD Models at International Steel Conference

On May 11-13, CIVS Research Scientist Orlando Ugarte attended the EEC & EMECR Conference held in Milan, Italy with over 600 participants from around the world.



He presented a Keynote titled “Optimization of Electric Arc Furnace Refining via CFD Simulation of Steel, Slag, and Freeboard Dynamics”. [Read more...](#)

Dr. Zhou Presented at DOE ITO Seminar

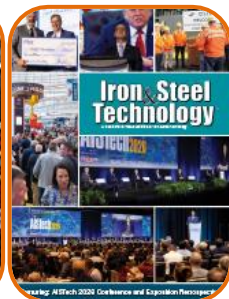


On June 24, Dr. Zhou was invited to present “Consortium-Driven Industrial Innovation through Physics-Based Integrated Virtual Processes for Steel

Manufacturing Digitalization” in the DOE Industrial Technologies Office (ITO) June Seminar. [Read more...](#)

Technical Papers Published in Iron & Steel Technology

CIVS Reheating Furnace and Crane Research papers were featured in the June issue [Read more...](#) and August issue of AIST Iron & Steel Technology Magazine. [Read more...](#)



CIVS Hosted Harvard Graduate Students

Graduate students from Harvard University’s Kennedy School of Government visited CIVS to learn about the advanced digital technologies and their impacts on steel and other industries on May 6. The visit was organized by Alejandra Castillo, PNW’s Chancellor’s Fellow for Economic Development. [Read more...](#)



CIVS Welcomed NWI Forum Reps

On June 1, CIVS welcomed Kay Nelson, Environmental Affairs Director, and Michele Murday Pariso, Environmental and Public Policy Director. CIVS staff provided an overview of CIVS and SMSVC, and demos of CIVS projects. [Read more...](#)



CIVS Alumni Share Real-World Career Experience

CIVS former graduate research assistants Kiranchandru “KC” Lingeswaran (MSME ’25) and Qingyun Pu (MSCS ’25) returned to CIVS and had lively discussions with students and staff about their working experiences at Amazon on May 8. They shared real-world working situations and expectations. They encouraged students to fully utilize CIVS research experience to develop strong abilities and skills in technical knowledge, communication, curiosity, real-world problem solving, life-long learning, and time management. [Read more...](#)



CIVS Undergrad Research Student Presented at Korean International Conference



Congratulations to CIVS undergraduate research student Seongchan Oh for receiving a Certificate of Commendation for Excellence in Presenting at the 7th International Cultural Academic Conference in Korea. His presentation was titled “Agricultural Ammonia as a Sustainable Energy Source for Industrial Applications”. [Read more...](#)

CIVS Outreach for MCE Summer Camps & REEU Student Seminar

On June 22, CIVS hosted over 40 middle school [Read more...](#) and high school students [Read more...](#) to learn state-of-the-art technologies in simulation & visualization. On July 21, CIVS hosted a seminar for CIVS undergraduate research students participating in the PNW REEU program. [Read more...](#)



CIVS Virtual Flood Lab for PNW CE Students

On April 28 and 30, PNW CE students used the CIVS Virtual Flood Simulator to learn about flood mitigation strategies in the CIVS Theater. The virtual lab is part of the CE34200 Engineering Hydrology and Hydraulics course.. [Read more...](#)



Purdue Chief of Staff and Government Relations Directors Tour CIVS

On June 8, CIVS welcomed Purdue’s Chief of Staff Trent Klingerman. [Read more...](#) On July 20, CIVS welcomed Purdue Government Relations Leaders. [Read more...](#)



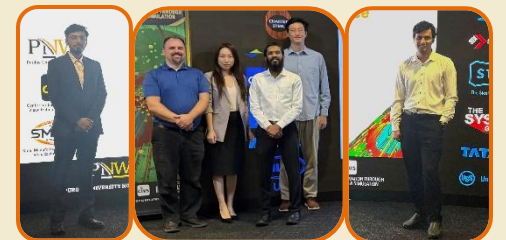
CIVS Researchers Presented at International Computer Workshop

On June 3, CIVS research was presented at the prestigious 2026 Computer Vision and Pattern Recognition Workshop in Denver, CO. CIVS faculty collaborator Professor Yang Ni (PNW Assistant Prof. of CS) and two CIVS RAs, Jay Polra and Dhwanil Chauhan, who are pursuing their MS in computer science, presented their paper titled “Visual Geometry Grounded Novel-View Acoustic Synthesis”. This work is supported by SMSVC. [Read more...](#)



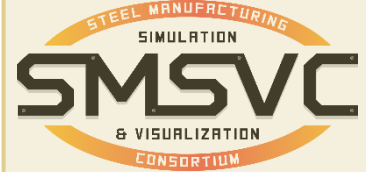
CIVS Graduate Research Assistants Successfully Defended their Masters Thesis

Congratulations to CIVS Graduate Research Assistants, Abdul Mateen Mohammed and Mohammadhossein Alimohammadi, on successfully defending their M.S. thesis in Mechanical Engineering on July 17. [Read more...](#) Congratulations to Nadeem Jaffer Mohammed on successfully defending his M.S. thesis in Computer Science on July 24. [Read more...](#)



CIVS Hosted SDI Managers for CIVS & SMSVC Projects

On June 12, Conrad Fisher (Melting Manager) and Eric Murray (Safety Coordinator) from Steel Dynamics visited CIVS to gain insight on CIVS and SMSVC safety and workforce development projects. They reviewed SMSVC projects including AI Hazard Recognition, SDI is one of the current case study sites. [Read more...](#)



SMSVC NOTES

Annual Meeting
November 4-5, 2026

If interested in becoming a member, please contact steelcons@pnw.edu or visit steelconsortium.org

CIVS Welcomed Indiana University South Bend Leadership

On August 4, CIVS welcomed leadership from Indiana University South Bend (IUSB). Visitors included Brian Pappas (Chancellor), Kory Vitangeli (Vice Chancellor for Student Engagement), Rob DeCleene (Vice Chancellor for University Relations and Advancement), and Andy Williams (Vice Chancellor for Administration and Finance). [Read more...](#)



CIVS Welcomes Faculty from PFW Center of Excellence in System Engineering

CIVS welcomed Purdue University Fort Wayne Center of Excellence in Systems Engineering leaders David Cochran (Professor and Director) and Joseph Smith (Associate Director).

During the visit, Dr. Zhou provided an overview of CIVS & SMSVC, highlighting the center's work in applied research and industry collaboration. Productive discussions were also made for future potential collaborations. [Read more...](#)



Representatives from AugMend Health Visit CIVS for VR Projects

On June 9, representatives from AugMend Health visited CIVS to gain further insight on the VR-

FUTURES project. The project provides a tool for clinicians to use when working with youth who have been affected by adverse childhood experiences. The group also had hands-on demos of the project. [Read more...](#)



Facts and Impacts

- \$40+ million savings for companies
- \$55.30+ million in external grants and contracts
- 200+ external organizations collaborated with CIVS
- 500+ projects
- 710+ national and local news
- 2,350+ students employed and mentored
- 11,750+ students used CIVS for virtual labs
- 200+ Purdue faculty and staff collaborators
- 366+ student awards and grants (globally since 2011)
- 46,000+ local, national, and international visitors