# 2025 I Iron & Steel Technology I AIST.org

# **AIST Foundation Update**

# 2025–2026 AIST Foundation Scholarship Recipients

The AIST Foundation awards academic scholarships on an annual basis to talented and dedicated students to encourage the pursuit of careers within iron- and steel-related industries. Unless noted, scholarships are granted to full-time undergraduate students with a strong interest in a career in the iron and steel industry and majoring in the field of engineering or engineering technology, computer science, data science, environmental and sustainability sciences, or industrial safety at an accredited North American college or university.

# **AIST Steel Intern Scholarships**

It is the program's goal that these scholarships and summer internships provide incentive for students to become involved in the steel industry. Each recipient will receive a paid summer internship with a North American steel-related company during the summer immediately following selection and, providing there is satisfactory performance by the student both academically and in the internship, be awarded funding toward tuition following the internship. Full-time university students who are citizens of the U.S., Canada or Mexico, may apply each year. Scholarship value for applicants awarded from non-high-income countries shall be set at 60% of the full amount (US\$4,500).

#### **Premier Steel Intern Scholarship**

US\$12,000 one-year scholarship

This scholarship was established in 2008. The scholarship is awarded to the top-scoring applicant of all applications received. The 2025-2026 recipient is:

• Adriana Lozano Garcia from Morelia, Mich., Mexico. Adriana is a junior materials engineering major at the Instituto Tecnológico de Morelia. She completed her internship at Nucor-IFE Steel Mexico, Silao, Gto., Mexico.

#### Willy Korf Memorial Scholarship

Two US\$7,500 one-year scholarships

This scholarship was established by Korf Lurgi Steeltec Inc. to honor the late Willy Korf, founder of the Korf Group and a well-known promoter/developer of innovative technology. The 2025–2026 recipients are:

- Morgan E. Cambron from Goodlettsville, Tenn., USA. Morgan is a senior civil engineering major at Western Kentucky University. She completed her internship at Kirby Building Systems, a Nucor Company, Portland, Tenn., USA.
- Lauren O. Jaracz from LaPorte, Ind., USA. Lauren is a senior engineering design and mechanical engineering major at Rose-Hulman Institute of Technology. She completed her internship at Cleveland-Cliffs Burns Harbor, Burns Harbor, Ind., USA.

#### Ronald E. Lincoln Memorial Scholarship

Two US\$7,500 one-year scholarship

This scholarship was established by Chaparral Steel as a tribute to Ronald Lincoln and is awarded to individuals who best exemplify the qualities of leadership and innovation. The 2025–2026 recipients are:

- Janel R. Graham from Jonesboro, Ark., USA. Janel is a senior mechanical engineering major at Arkansas State University. He completed his internship at Nucor-Yamato Steel Co., Blytheville, Ark., USA.
- Landon E. Rogers from Jonesboro, Ark., USA. Landon is a junior mechanical engineering major at Arkansas State University. He completed his internship at The Systems Group, Little Rock, Ark., USA.

#### Benjamin F. Fairless Scholarship (AIME)

One US\$7,500 one-year scholarship

This scholarship was established in 1954 by a grant from United States Steel Corporation in memory of its longtime chairman of the board. The 2025-2026 recipient is:

• Benjamin B. Borchers from New Braunfels, Texas, USA. Benjamin is a junior chemical engineering major at the Texas A&M University. He completed his internship at CMC Steel Texas, Seguin, Texas, USA.

#### AIST Smith Graduate Scholarship (AIME)

One US\$7,500 one-year scholarship

This scholarship was established by the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) in 1967 to honor Henry DeWitt Smith's contributions to the mining industry. The 2025–2026 recipient is:

• Abigail L. Clark from Butte, Mont., USA. Abigail is a studying metallurgical and materials engineering at Montana Technical University. She completed her internship at Nucor Steel Louisiana LLC, St. James Parish, La., USA.



Lozano Garcia



Cambron



Jaracz



Graham



Rogers



**Borchers** 



A. Clark















N Clark

Radoiu

Bacon

Bortoni Gonzalez

Brown

Cheney

#### AIST William E. Schwabe Memorial Scholarship

One US\$7,500 one-year scholarship

This scholarship was established in 2005 in collaboration with the Steel Manufacturers Association (SMA) to commemorate the life and industry service of Mr. Schwabe, a pioneer in the application of electrical engineering technology to the advancement and refinement of electric arc furnace steelmaking. The 2025-2026 recipient is:

• Nolan J.M. Clark from Dundas, Ont., Canada. Nolan is a senior mechanical engineering and management major at McMaster University. He completed his internship at The Systems Group, Little Rock, Ark., USA.

#### David H. Samson Scholarship

One US\$7,500 one-year scholarship

Selected by the AIST Northern Member Chapter, this scholarship was established to honor David H. Samson, past vice president of engineering at Dofasco and past president of AISE. The 2025–2026 recipient is:

• Michelle Radoiu from Windsor, Ont., Canada. Michelle is a senior materials engineering major at McMaster University. She completed her internship at McMaster University-CAMC, Hamilton, Ont., Canada.

#### Steel Intern Scholarships

US\$7,500 one-year scholarships

These scholarships were established in 2005. The 2025–2026 recipients are:

- Don C. Bacon from St. Clair, Mich., USA. Don is a senior electrical and computer engineering major at Michigan Technological University. He completed his internship at Nucor Steel-Indiana, Crawfordsville, Ind., USA.
- Gabriel Bortoni Gonzalez from San Pedro Garza Garcia, N.L., Mexico. Gabriel is a junior electrical engineering major at University of California San Diego. He completed his internship at Pacific Steel Group, Mojave, Calif., USA.
- Paxton J.M. Brown from Blytheville, Ark., USA. Paxton is a senior metallurgical engineering major at the University of Alabama. He completed his internship at Nucor Steel Tuscaloosa Inc., Tuscaloosa, Ala., USA.

- R. Gibson Cheney from Jackson, Miss., USA. R. Gibson is a senior metallurgical engineering major at the University of Alabama. He completed his internship at Nucor Steel Tuscaloosa Inc., Tuscaloosa, Ala., USA.
- Brooke L. Clark from Warren, Ohio, USA. Brooke is a senior chemical engineering major at Youngstown State University. She completed her internship at U. S. Steel – Fairfield Tubular Operations, Fairfield, Ala., USA.
- Justin L. Culp from Youngstown, Ohio, USA. Justin is a junior chemical engineering major at Youngstown State University. He completed his internship at U. S. Steel — Mon Valley Works, West Mifflin, Pa., USA.
- Gerald J.M. Dittrich from Hamilton, Ont., Canada. Gerald is a junior biomedical and materials engineering major at McMaster University. He completed his internship at ArcelorMittal Dofasco G.P., Hamilton, Ont., Canada.
- Ava P. Dutton from Columbia, Mo., USA. Ava is a junior environmental engineering/sustainability major at Missouri University of Science and Technology. She completed her internship at Nucor Steel Kingman, Kingman, Ariz., USA.
- Aiden C. Eckert from Midland, Mich., USA. Aiden is a senior mechanical engineering major at Michigan Technological University. He completed his internship at Nucor Steel West Virginia, Apple Grove, W.Va., USA.
- Grace M. Ekness from Billings, Mont., USA. Grace is a junior metallurgical and materials engineering major at Montana Technological University. She completed her internship at Nucor Steel Kankakee, Kankakee, Ill., USA.
- Hartleigh B. Gardner from Satsuma, Ala., USA. Hartleigh is a senior civil engineering major at the University of South Alabama. She completed her internship at AM/NS Calvert LLC, Calvert, Ala., USA.
- Daniel Giganti from Pittsburgh, Pa., USA. Daniel is a senior materials science engineering major at the University of Pittsburgh. He completed his internship at Universal Stainless and Alloy Products Inc., Dunkirk, N.Y., USA.













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Dutton

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# **AIST Foundation Update**



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Ibarra Alvarado Harris Hope

Lloyd

Mancilla Lozano Maldonado Guillermo

- Hannah A.M. Gillgrass from Ancaster, Ont., Canada. Hannah is a junior chemical engineering and management major at McMaster University. She completed her internship at ArcelorMittal Dofasco G.P., Hamilton, Ont., Canada.
- Nate N.F. Harris from Winnipeg, Man., Canada. Nate is a junior applied science major at the University of British Columbia. He completed his internship at Gerdau, Selkirk, Man., Canada.
- Andrew J.M. Hope from Golden, Colo., USA. Andrew is a senior metallurgy and materials engineering major at Colorado School of Mines. He completed his internship at OCAS/ArcelorMittal Ghent, Ghent, Belgium.
- Fernanda R. Ibarra Alvarado from Saltillo, Coah., Mexico. Fernanda is a senior materials engineering major at Instituto Tecnológico de Morelia. She completed her internship at Ternium Mexico, Monterrey, N.L., Mexico.
- Madeleine Lloyd from Grimsby, Ont., Canada. Madeleine is a junior materials science and engineering major at McMaster University. She completed her internship at Stelco Inc., Hamilton, Ont., Canada.
- Emmanuel Lozano Maldonado from Morelia, Mich., Mexico. Emmanuel is a senior materials engineering major at Instituto Tecnológico de Morelia. He completed his internship at Nucor-JFE Steel Mexico, Silao, Gto., Mexico.
- Luna Mancilla Guillermo from Saltillo, Coah., Mexico. Luna is a senior materials engineering major at Instituto Tecnológico de Saltillo. She completed her internship at Ternium Mexico, Monterrey, N.L., Mexico.
- Massimiliano Memoli from Pittsburgh, Pa., USA. Massimiliano is a senior mechanical engineering major at Northeastern University. He completed his internship at Primetals Technologies, Pittsburgh, Pa., USA.
- Molly G. Meyer from Collevville, Texas, USA. Molly is a junior metallurgical and materials engineering major at Colorado School of Mines. She completed her internship at Nucor Steel-Nebraska, Norfolk, Neb., USA.

- Rodrigo A. Molina Martinez from Saltillo, Coah., Mexico. Rodrigo is a junior materials engineering major at Instituto Tecnológico de Saltillo. He completed his internship at Ternium Mexico, Monterrey, N.L., Mexico.
- Joshua P. Nelson from Indiana, Pa., USA. Joshua is a junior industrial engineering major at Pennsylvania State University Erie. He completed his internship at ArcelorMittal Calvert, Calvert, Ala., USA.
- Carson A. Neurnberger from Wentzville, Mo., USA. Carson is a junior metallurgical engineering major at Missouri University of Science and Technology. He completed his internship at Nucor Steel-Berkeley, Huger, S.C., USA.
- Korinne M. Newcamp from Mifflintown, Pa., USA. Korinne is a junior aerospace engineering major at the University of Cincinnati. She completed her internship at The Timken Co., Peoria, Ill., USA.
- Migel A. Ojeda Medina from Morelia, Mich., Mexico. Migel is a senior materials engineering major at Instituto Tecnológico de Morelia. He completed his internship at Ternium Mexico, Monterrey, N.L., Mexico.
- Caleb P. Oppelt from Goodwin, S.D., USA. Caleb is a junior metallurgical engineering major at South Dakota School of Mines and Technology. He completed his internship at Scot Forge, Spring Grove, Ill., USA.
- Kimberly A. Patterson from Dermott, Ark., USA. Kimberly is a junior mechanical engineering major at Arkansas State University. She completed her internship at The Systems Group, Little Rock, Ark., USA.
- Zachary A.M. Plummer from Arvada, Colo., USA. Zachary is a senior metallurgical and materials engineering major at the Colorado School of Mines. He completed his internship at Nucor Steel-Berkeley, Huger, S.C., USA.
- Trevor L. Racine from Loveland, Colo., USA. Trevor is a senior metallurgical engineering major at South Dakota School of Mines and Technology. He completed his internship at SSAB Americas Research & Development, Montpelier, Iowa, USA.
- Raelynn M. Ramsey from Powell, Wyo., USA. Raelynn is a senior mechanical engineering major at Montana Technological University. She completed her internship at Nucor Steel-Berkeley, Huger, S.C., USA.



Memoli Meyer



Molina Martinez











Neurnberger

Newcamp

Oieda Medina















Oppelt

Patterson

Plummer

Racine

Ramsev

H Smith

Tania Toyar

- Haden A. Smith from Salem, Va., USA. Haden is a junior mechanical engineering major at Virginia Tech. He completed his internship at Steel Dynamics Inc. – Butler Flat Roll Division, Butler, Ind., USA.
- Robyn A. Strazisar from Venitia, Pa., USA. Robyn is a senior materials science and engineering major at the University of Pittsburgh. She completed her internship at Ellwood Quality Steels, New Castle, Pa., USA.
- Adolfo Tapia Tovar from Morelia, Mich., Mexico. Adolfo is a senior materials engineering major at Instituto Tecnológico de Morelia. He completed his internship at Ternium Mexico, Monterrey, N.L., Mexico.
- Luke E. Tilka from Ashton, W.Va., USA. Luke is a senior mechanical engineering major at Marshall University. He completed his internship at Nucor Steel West Virginia, Apple Grove, W. Va., USA.
- Ashton W. Ventura from Carthage, Mo., USA. Ashton is a senior materials engineering major at Missouri

- University of Science and Technology. He completed his internship at Nucor Steel-Berkeley, Huger, S.C., USA.
- Erick J. Villarreal Valle from Frontera, Coah., Mexico. Erick is a senior metallurgy and materials engineering major at Universidad Autonoma de Coahuila. He completed his internship at Ternium Mexico, Monterrey, N.L., Mexico.

#### Don B. Daily Safety Scholarship

Two US\$7,500 one-year scholarships The 2025–2026 recipients are:

- Matthew W. Christy from Prospect, Pa., USA. Matthew is a junior safety management major at Slippery Rock University. He completed his internship at Ellwood Quality Steels, New Castle, Pa., USA.
- · Aidan J.M. Powell from Beecher, Ill., USA. Aidan is a senior environmental health and safety major at Purdue University Northwest. He completed his internship at Finkl Steel, Chicago, Ill., USA.

# Member Chapter Scholarships

#### AIST Birmingham Chapter Scholarships

Two US\$2,500 one-year scholarships and three US\$250 one-year scholarships

- R. Gibson Cheney (pictured on page 33) from Jackson, Miss., USA. R. Gibson is a senior metallurgical engineering major at the University of Alabama. He is a student member of AIST.
- Amelia L. West from Mobile, Ala., USA. Amelia is a sophomore geology major at the University of South Alabama. She is the relative of AIST member Michael C. Wilson of Berry Metal Co.
- Quanya K. Gamble from Mobile, Ala., USA. Quanya is a senior cybersecurity major at the University of Southern Mississippi. He is the relative of AIST member Charles Gamble of SSAB Alabama Inc.
- Olivia M. Goodman from Bethalto, Ill., USA. Olivia is a junior data science major at Mississippi State University. She is the relative of AIST member John R. Goodman of Veolia Water Technologies & Solutions.

• Jack P. Howley from Daphne, Ala., USA. Jack is a junior chemical engineering major at the University of South Alabama. He is the relative of AIST member Jon P. Howley of SSAB Americas.

#### AIST Detroit Member Chapter Scholarships

#### Judith A. Quinn Scholarship

Three US\$5,000 scholarships

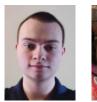
- Nicholas R. Patrizi from Lancaster, Mass., USA. Nicholas is a sophomore physics major at the University of Massachusetts Amherst. He is the relative of AIST member Robert A. Patrizi of Sidock Group Inc.
- Madeline J. Shafer from Monroe, Mich., USA. Madeline is a senior environmental engineering major at the University of Toledo. She is the relative of AIST member Michael Shafer of DTE Energy Services/EES Coke Battery LLC.

















Tilka

Powell

West

Gamble

Goodman

Ventura Christy















Howley

Patrizi

Shafer

A.R. Smith

Williamson

Bosma

DeRosa

 Abigail R. Smith from Commerce, Mich., USA. Abigail is a senior mechanical engineering major at Michigan Technological University. She is the relative of AIST member Samuel M. Smith of Arkansas Steel Associates.

#### **AIST Globe-Trotters Member Chapter Scholarships**

One US\$5,000 one-year scholarship, 21 US\$1,000 one-year scholarships and four US\$500 one-year scholarships

- Alec C. Williamson from Wheat Ridge, Colo., USA. Alec is a graduate student studying metallurgical and materials engineering at Colorado School of Mines. He is a student member of AIST.
- Adele P. Bosma from Hurricane, W.Va., USA. Adele is a senior computer science major at Concord University. She is the relative of AIST member Diane Lionts of Nucor Steel West Virginia.
- R. Gibson Cheney (pictured on page 33) from Jackson, Miss., USA. R. Gibson is a senior metallurgical engineering major at the University of Alabama. He is a student member of AIST.
- Nolan J.M. Clark (pictured on page 33) from Dundas, Ont., Canada. Nolan is a senior mechanical engineering and management major at McMaster University. He is the relative of AIST member Shannon F. Clark of ArcelorMittal Dofasco G.P.
- Brooke L. Clark (pictured on page 33) from Warren, Ohio, USA. Brooke is a senior chemical engineering major at Youngstown State University. She is a student member of AIST.
- Emma P. DeRosa from Massillon, Ohio, USA. Emma is a junior chemical engineering major at Miami University. She is the relative of AIST Member Christopher J. DeRosa of Washington Mills Electro Minerals Corp.
- Thomas D. Emery from Valparaiso, Ind., USA. Thomas is a freshman industrial engineering major at Purdue University. He is the relative of AIST Member Robert D. Emery of Cleveland-Cliffs Indiana Harbor.
- Celia C. Faroh from Chesterton, Ind., USA. Celia is a senior strategic management and marketing major at the

- University of Notre Dame. She is the relative of AIST member James C. Faroh of Barton Mallow Co.
- Clayton A. Ferguson from Murfreesboro, Tenn., USA. Clayton is a graduate business administration student at the University of Alabama. He is the relative of AIST Member Scott A. Ferguson of Systems Spray Cooled.
- Cooper E. Ferguson from Murfreesboro, Tenn., USA. Cooper is a sophomore finance major at Tennessee Technological University. He is the relative of AIST Member Scott A. Ferguson of Systems Spray Cooled.
- Ella A. Gilhooly from Port Washington, Wis., USA. Ella is a senior genetics and genomics and life science communications major at the University of Wisconsin Madison. She is the relative of AIST member Sean P. Gilhooly of Charter Steel - Saukville, Wisconsin.
- Isabella G. Holden from Webberville, Mich., USA. Isabella is a junior materials science and chemical engineering major at the University of Michigan. She is a student member of AIST.
- U. Antonio Holmberg from Middleburg, Fla., USA. Antonio is a junior mechanical engineering major at the University of South Florida. He is the relative of AIST member Ulrik Holmberg of Sund Birsta Inc.
- Jack P. Howley (pictured on page 36) from Daphne, Ala., USA. Jack is a junior chemical engineering major at the University of South Alabama. He is the relative of AIST member Jon P. Howley of SSAB Americas.
- Amiya Johnson from Gibsonia, Pa., USA. Amiya is a junior materials science and engineering major at the University of Michigan. She is a student member of AIST.
- Tyler A. Kleinsasser from Daleville, Va., USA. Tyler is a graduate mechanical engineering student at the South Dakota School of Mines and Technology. He is a student member of AIST.
- Sadie S. Overbey from Kennett, Mo., USA. Sadie is a freshman mechanical engineering major at the University of Mississippi. She is the relative of AIST member Jackie Overbey of Lexicon Inc.
- Aidan J. Powell (pictured on page 35) from Beecher, Ill., USA. Aidan is a senior occupational leadership and supervision/environmental health and safety major at Purdue University Northwest. He is a student member of AIST.















Emery

Faroh

C.A. Ferguson

Gilhooly

Holden

Holmberg















Johnson

Kleinsasser

Overbey

A.G. Smith

Zenger

Conley

Gebes

- Trevor L. Racine (pictured on page 35) from Loveland, Colo., USA. Trevor is a senior metallurgical engineering major at the South Dakota School of Mines and Technology. He is a student member of AIST.
- Teresa S. Sasso from Wheaton, Ill., USA. Teresa is a junior materials and science and engineering major at the University of Illinois Urbana-Champaign. She is the relative of AIST member Oldair F. Sasso of Spraying Systems Co.
- Alexander G. Smith from Grove City, Pa., USA. Alexander is a freshman mechanical engineering major at Cornell University. He is the relative of AIST member Todd G. Smith of CoS Source.
- Connor A. Zenger from Canonsburg, Pa., USA. Connor is a freshman environmental science major at Paul Smith's College. He is the relative of Heather Zenger of CDMG.
- Madison D. Conley from Memphis, Tenn., USA. Madison is a sophomore mechanical engineering major at the University of Memphis. She is a student member of AIST.
- Justin L. Culp (pictured on page 33) from Youngstown, Ohio, USA. Justin is a junior chemical engineering major at Youngstown State University. He is a student member of AIST.
- Stephen G. Gebes from Whitewood, S.D., USA. Stephen is a junior metallurgical engineering major at the South Dakota School of Mines and Technology. He is a student member of AIST.
- Jack D. Sparks from Dallas, Ore., USA. Jack is a freshman mechanical engineering major at Oregon State University. He is a student member of AIST.

### AIST Midwest Member Chapter Scholarships

Fourteen US\$3,000 one-year scholarships

#### **AIST Don Nelson Scholarship**

• Aryaman S. Agashe from Porter, Ind., USA. Aryaman is a sophomore mechanical engineering major at Purdue University. He is the relative of AIST member Soumitra Agashe of Cleveland-Cliffs Burns Harbor.

#### Mel Nickel Award for Engineering

• Adam C. Lundquist from Kouts, Ind., USA. Adam is a freshman integrated business and engineering major at Purdue University. He is the relative of AIST member Chuck Lundquist of Novaspect Inc.

#### Betty McKern Award for Women in Engineering

• Teresa S. Sasso from Wheaton, Ill., USA. Teresa is a junior materials science and engineering major at University of Illinois Urbana-Champaign. She is the relative of AIST member Oldair F. Sasso of Spraying Systems Co.

#### Jack Gill Award for Engineering

 Tayton S. Salmon from Norfolk, Neb., USA. Tayton is a sophomore mechanical engineering major at South Dakota State University. He is the relative of AIST member Susan Finochiaro of Nucor Steel-Nebraska.

#### Western States Award

• Sara J. Progler from Munster, Ind., USA. Sara is a junior exercise science major at the Indiana University. She is the relative of AIST member Thomas M. Progler of Cleveland-Cliffs Indiana Harbor.

#### **Engineering Scholarship**

- Thomas D. Emery (pictured on page 36) from Valparaiso, Ind., USA. Thomas is a freshman industrial engineering major at Purdue University Northwest. He is the relative of Robert D. Emery of Cleveland-Cliffs Indiana Harbor.
- Makenna J. Gill from Morton, Ill., USA. Makenna is a senior chemical engineering major at Rose-Hulman Institute of Technology. She is a student member of AIST.

#### Tom Cipich Non-Engineering Scholarship

• Nicholas R. Johnsen from Highland, Ind., USA. Nicholas is a sophomore finance major at Valparaiso University. He is the relative of AIST member Robert W. Johnsen of Cleveland-Cliffs Indiana Harbor.

#### **Technology Scholarship**

One US\$3,000 one-year scholarship

• Zachary M. Stucke from Plymouth, Wis., USA. Zachary is a senior environmental engineering major at the University of Wisconsin Madison. He is the relative of AIST member Troy Stucke of Charter Steel -Saukville, Wisconsin.









Salmon







Johnsen

Sparks

Agashe

Lundquist

Progler

Gill















Stucke

**Zuelsdorff** 

Warner

Cormier

Haldar Khalathbari

Prakash

#### Material Advantage Scholarship

- Caleb P. Oppelt (pictured on page 35) from Goodwin, S.D., USA. Caleb is a junior metallurgical engineering major at the South Dakota School of Mines and Technology. He is a student member of AIST.
- Aidan J.M. Powell (pictured on page 35) from Beecher, Ill., USA. Aidan is a senior environmental health and safety major at Purdue University Northwest. He is a student member of AIST.
- Laney L. Zuelsdorff from Merrill, Wis., USA. Laney is a senior material science and engineering major at the University of Wisconsin Madison. She is a student member of AIST.

#### Midwest Member Chapter Scholarship

• Aidan J. Taskoff from Valparaiso, Ind., USA. Aidan is a sophomore mechanical engineering major at Purdue University Northwest. He is the relative of AIST member Steven Taskoff of NIPSCO.

#### **Computer Technology Scholarship**

• Marshall B. Warner from Sherrard, Ill., USA. Marshall is a senior information science major at the University of Illinois Urbana-Champaign. He is the relative of AIST member Matthew L. Warner of SSAB Iowa Inc.

# **AIST Northern Member Chapter Scholarships**

Eight US\$2,000 one-year scholarships

- Nolan J.M. Clark (pictured on page 33) from Dundas, Ont., Canada. Nolan is a senior mechanical engineering and management major at McMaster University. He is the relative of AIST member Shannon F. Clark of ArcelorMittal Dofasco G.P.
- Christopher J. Cormier from Sault Ste. Marie, Ont., Canada. Christopher is a freshman electrical engineering technician/technology-process automation major at Sault College. He is the relative of AIST member Jeffery Cormier of Algoma Steel Inc.
- Amogha Haldar from Simcoe, Ont., Canada. Amogha is a freshman engineering major at McMaster University. She is the relative of AIST member Achinta Haldar of Stelco Inc.

- Nate N.F. Harris (pictured on page 34) from Winnipeg, Man., Canada. Nate is a junior mechanical engineering and management major at the University of British Columbia. He is a student member of AIST.
- Fatemeh Khalathbari from Hamilton, Ont., Canada. Fatemeh is a graduate materials science engineering student at McMaster University. She is a student member of AIST.
- Alisha Prakash from Colorado Springs, Colo., USA. Alisha is a sophomore computer science major at the University at Buffalo. She is the relative of AIST member Bijay Prakash of Tesla.
- Nicholas H. Rathfelder from Waterford, Ont., Canada. Nicholas is a junior electrical engineering major at the University of Waterloo. He is a student member of AIST.
- Jackson D.M. Ryan from Hamilton, Ont., Canada. Jackson is a sophomore business administration major at Mohawk College. He is the relative of AIST member Shannon F. Clark of ArcelorMittal Dofasco G.P.

#### AIST Northeastern Ohio Member Chapter **Scholarships**

#### John Klusch Scholarship

Three US\$2,000 one-year scholarships

- Anar Badalbayli from Cleveland, Ohio, USA. Anar is a graduate chemical engineering major at Case Western Reserve University He is a Young Professional member of AIST.
- Ryan T. McGinnis from Chesterland, Ohio, USA. Ryan is a senior metallurgical and materials engineering major at the Colorado School of Mines. He is a student member of AIST.
- Jocelyn J. Zhao from Canfield, Ohio, USA. Jocelyn is a junior artificial intelligence and decision-making major at the Massachusetts Institute of Technology. She is the daughter of AIST member Haishi Zhao of Butech Bliss.

#### A.B. Glossbrenner Scholarship

Five US\$2,000 one-year scholarships

• Jeannie M. Fritz from Malvern, Ohio, USA. Jeannie is a senior electrical engineering major at the University of Akron. She is a student member of AIST.



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Ryan

Badalbayli

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Garwacki

Madar















Sainiak

Slana

Cox

Alberts

McKain

Hruskoci

Upadhyay

- Alex B. Garwacki from Columbiana, Ohio, USA. Alex is a senior biomedical engineering major at Miami University. He is the relative of AIST member Brad S. Garwacki of Globex Corp.
- Noah A. Madar from Hudson, Ohio, USA. Noah is a sophomore electrical and computer engineering major at The Ohio State University. He is the relative of AIST member Michael P. Madar, retired, Cleveland-Cliffs Inc.
- Brandon W. Sainiak from Mansfield, Ohio, USA. Brandon is a senior computer science major at Kent State University. He is the relative of AIST member Kevin F. Sainiak of Searchlight LLC.
- Stephen J. Slana from Newburgh Heights, Ohio, USA. Stephen is a graduate materials science and engineering major at Case Western Reserve University. He is a professional member of AIST.

#### University of Akron Scholarship

One US\$1,000 one-year scholarship

• Ty Cox from Akron, Ohio, USA. Ty is a senior mechanical engineering major at the University of Akron.

#### Youngstown State University Scholarship

One US\$1,000 one-year scholarship

• Brooke Clark (pictured on page 33) from Warren, Ohio, USA. Brooke is a senior chemical engineering major at Youngstown State University.

#### AIST Ohio Valley Member Chapter Scholarships

One US\$5,000 one-year scholarship and two US\$3,000 one-year scholarships

- Lily C. Alberts from LaPorte, Ind., USA. Lily is a senior materials science and engineering major at Purdue University. She is a student member of AIST.
- Lauren O. Jaracz (pictured on page 32) from LaPorte, Ind., USA. Lauren is a senior mechanical engineering/ engineering design major at Rose-Hulman Institute of Technology. She is a student member of AIST.
- Josie L. McKain from Liberty Township, Ohio, USA. Josie is a senior marketing major at the University of Cincinnati. She is the relative of AIST member Jeffry C. McKain.

#### The Systems Group Scholarship

One US\$3,000 one-year scholarship

• Carson C. Hruskoci from Fishers, Ind., USA. Carson is a senior finance and Spanish major at the University of Notre Dame. He is the relative of AIST member Robert J. Hruskoci of Advanced Industrial Marketing Inc.

#### AIST Philadelphia Member Chapter Scholarship

One US\$5,000 one-year scholarship

• Prastuti Upadhyay from Philadelphia, Pa., USA. Prastuti is a junior materials science and engineering major at Drexel University. She is a student member of AIST.

#### **AIST Pittsburgh Member Chapter Scholarships**

#### Lawrence G. Maloney Scholarship

One US\$5,000 one-year scholarship

• Mark T. McAleer from Oakdale, Pa., USA. Mark is a graduate mechanical engineering student at the University of Pittsburgh. He is a student member of AIST.

# AIST Pittsburgh Member Chapter Scholarship

Two US\$3,000 one-year scholarships

- Ioannis Dalezios from Pittsburgh, Pa., USA. Ioannis is a graduate materials science and engineering student at Carnegie Mellon University. He is a student member of AIST.
- Massimiliano Memoli (pictured on page 34) from Pittsburgh, Pa., USA. Massimiliano is a senior mechanical engineering major at Northeastern University. He is the relative of AIST member Francesco Memoli of Tenova Inc.

#### AIST Southeast Member Chapter Scholarships

#### Gene Suave Scholarship

One US\$5,000 one-year scholarship and one US\$2,500 scholarship

• Brooke T. Lastinger from Orange Park, Fla., USA. Brooke is a senior materials science and engineering major at University of Florida. She is a student member of AIST.









Kuiters



Dalezios Lastinger

Gansemeer

Marsh

•Bethany S. Gansemeer from Tampa, Fla., USA. Bethany is a senior materials science and engineering major at Virginia Tech. She is a student member of AIST.

#### The Systems Group Scholarship

One US\$2,500 one-year scholarship

• Drew J. Kuiters from Dacula, Ga., USA. Drew is a junior mechanical engineering major at Georgia Southern University. He is a student member of AIST.

#### AIST Southern California Member Chapter **Scholarships**

Two US\$1,500 one-year scholarships

• Emily R. Marsh from Alexandria, Va., USA. Emily is a women, gender and sexuality studies graduate student

- at George Washington University. She is the daughter of John P. Marsh of California Steel Industries.
- Abigail J. Merchant from Rancho Cucamonga, Calif., USA. Abigail is a freshman mechanical engineering major at Worcester Polytechnic Institute. She is the relative of AIST member Donald E. Merchant of California Steel Industries.

#### AIST St. Louis Member Chapter Scholarships

Two US\$1,500 one-year scholarships

• Olivia M. Goodman (pictured on page 35) from Bethalto, Ill., USA. Olivia is a junior data science major at Mississippi State University. She is the relative of AIST member John R. Goodman of Veolia Water Technologies & Solutions.

#### **Endowment Scholarships**

#### **AIST Farrington Memorial Scholarship Fund**

Awarded and administered by the Rose-Hulman Institute of Technology, this scholarship was established by AISE in 1965 in honor of James Farrington, founding president of the Association of Iron and Steel Electrical Engineers (1907), for engineering students enrolled in the Rose-Hulman Institute of Technology. The 2024–2025 recipient was:

• Shveta Godbole from Mason, Ohio, USA. Shveta is a chemical engineering major.

#### AIST Madsen Scholarship Fund

Administered by the Massachusetts Institute of Technology (MIT), this scholarship was established in 1966 in memory of I.E. Madsen, AISE research and standards engineer (1945–1965), to support undergraduate students enrolled in the MIT School of Engineering. The 2023–2024 recipients were:

- Elenna M. Kim from Sterling, Va., USA. Elenna is a electrical engineering and computer science major.
- Kevin B. Lam from Houston, Texas, USA. Kevin is a electrical engineering and computer science major.

#### **AIST Morrow Scholarship Fund**

Awarded and administered by the University of Pennsylvania, this scholarship was established in 1966 in honor of Linn O. Morrow, who was secretary of the Philadelphia Member Chapter for 50 years, for engineering students enrolled in the School of Engineering and Applied Science. The 2024–2025 recipient was:

• Irfaz Oddir from Astoria, N.Y., USA. Irfaz is a chemical and biomolecular engineering/computer science major.

# 2025–2026 Grant Recipients

#### **AIST Foundation Steel Professors**

The designation of AIST Foundation Steel Professor was established in October 2017 to maintain a formal link to past recipients of the AIST Foundation's Kent D. Peaslee Junior Faculty Award and their university to encourage continued engagement with the steel industry. The 2025-2026 Steel Professors are:

Laura Bartlett, Missouri University of Science and Technology Emmanuel De Moor, Colorado School of Mines Nilesh Kumar, University of Alabama Monserrat Sofia Lopez-Cornejo, Instituto Tecnológico de Morelia Paul C. Lynch, Pennsylvania State University Erie JingJing Qing, Georgia Southern University Paul G. Sanders, Michigan Technological University Bryan Webler, Carnegie Mellon University Mingzhi Xu, Georgia Southern University

#### Kent D. Peaslee Junior Faculty Award

#### US\$50,000 per year for up to three years

Open to professors of all technical engineering disciplines at North American universities, the purpose of this award is to increase the number of tenure-track professors with a vested interest in the iron and steel industry, and will assist junior faculty in building their research and professional service activities toward obtaining tenure. Goals are for the junior faculty to become better informed about the steel industry, to encourage students to pursue careers in the iron and steel industry, to provide seed money for steel-related research projects, and to develop relationships between university and industry personnel.

Basak Anameric, Montana Technological University
Mario Buchely, Missouri University of Science and Technology
Jean-Charles Stinville, University of Illinois at Urbana-Champaign

## Sustainable Technologies for Steel Manufacturing Grant

#### US\$30,000 for one year

This grant was established in 2022 to challenge university teams from engineering, scientific and mathematical departments at North American universities, to submit proposals for grant funding in the theme area of sustainable technologies for steel manufacturing including decarbonization; CO<sub>2</sub> reduction; and carbon capture, utilization and storage, among other related technologies.

#### Orlando J. Ugarte, Purdue University Northwest

"Advancing Supersonic Injection of Oxygen and Soft-Oxidizers for Reducing Carbon Emissions in Industrial Scale EAFs"

# **Digital Technologies for Steel Manufacturing Grant**

#### US\$30,000 for one year

This grant was established to challenge university teams from engineering, scientific and mathematical departments at North American universities, to submit proposals for grant funding in the theme area of digital technology within the steel industry, including machine learning, computational science, simulation, augmented reality, additive manufacturing and autonomous robotics, among other related technologies.

#### Kyle J. Daun, University of Waterloo

"AI-Driven Radiative Sensing for Optimizing Continuous Galvanizing Processes"

# Steel Curriculum Development Grant

#### US\$25,000 over three years

The purpose of the Steel Curriculum Development Grant is to increase the number of students studying a steel-related curriculum in North America, and to increase the number of such students electing to pursue careers in the iron and steel industry upon graduation.

Alan P. Druschitz, Virginia Tech Nilesh Kumar, University of Alabama Monserrat Sofia Lopez-Cornejo, Instituto Tecnológico de Morelia Paul G. Sanders, Michigan Technological University Ravi K. Yellafajjala, Arizona State University

Visit AISTFoundation.org for more information.

# 2025 I Iron & Steel Technology I AIST.org

#### **Grant Recipient Report**

# **Steel Professor Grant**

**AIST Foundation Update** 

Mingzhi Xu, Georgia Southern University

The project goals are to enrich the student learning experience in the areas of steelmaking and metalcasting, and to prepare Georgia Southern students for the iron and steel industry.

First of all, the PI would like to thank AIST for the support, as he has received tenure and will be promoted to associate professor in fall 2023.

Thanks to the support of AIST, Foundry Educational Foundation (FEF), American Foundry Society (AFS), the iron and steel industry, and university administrators, Georgia Southern had another successful year in 2023-2024. After the completion of the brand-new ferrous foundry in January 2021, Georgia Southern melts about 5,000 lbs. of iron and steel each year. In the past year, the lab has seen continuous improvements on equipment, including a green sand muller, a custom-built sand delivery system, and an MTS optical extensometer. After the recent additions of the two new courses (MFGE 5533 Steel Heat Treatment and Microstructure by Jing Jing Qing, and MENG 5531 Metalcasting by Mingzhi Xu), a third course, ENGR 2436 Molten Metal Processes, has been added into the catalog, and it was offered in spring 2025 for the first time to sophomore students. In addition, the university has approved a new emphasis, metalcasting, for the mechanical engineering B.S. degree.

Material Advantage and the AFS students have hosted more than 10 internal events and participated in two national casting competitions. Specifically, Georgia Southern students received 1st and 2nd place in the AFS Southeast Cast Competition. Three industry events and six seminars were held on campus involving more than 50 industry professionals in total. Students have attended four national and regional conferences, including the AIST Southeast Member Chapter annual meeting, FEF College Industry Conference, AFS Southeast Regional Conference, and AFS Metalcasting Congress. Students have also participated in multiple plant tours, including Nucor Steel–Berkeley, Mercury Marine, and Briggs and Stratton.



Students working on the cupola/blast furnace.

Over US\$30,000 scholarships were awarded to students, including two recipients of the AIST US\$6,000 Internship Scholarship, which include internships at qualified iron and steel companies. In the past year, three students graduated and joined this industry. In addition, a total of eight students interned in the iron and steel industry this summer. More research projects have been initiated and are currently funded by the AFS, National Science Foundation and industry.

#### **Steel Intern Report**

# Eileen Hung

#### **Carnegie Mellon University**

Eileen Hung is from Los Altos, Calif., USA. Eileen is a senior materials science engineering major at Carnegie Mellon University. She completed her internship at U. S. Steel Research and Technology Center, Munhall, Pa., USA.



Interning at United States Steel Corporation has been the most rewarding summer of my college career. I got to utilize the skills I have learned throughout college as well as gain a variety of valuable experiences.

The community at the Research and Technology Center has been very welcoming. I bugged half the building with questions ranging from highly technical to asking for directions, and all of them have been met with patience and friendliness. Whenever I had a question that they couldn't answer, I would get pointed to resources that could. More than once, I stumped a person with a series of questions, only for them to come back a few hours later with a response and supporting references.

The resources at U. S. Steel are one of the things I value most. Everybody who works here has a vast amount of knowledge that they are happy to share, and additionally the building contains a library full of information dating back decades. There seems to be a book for every occasion, and I have a growing pile on my desk on subjects ranging from fracture mechanics to x-ray spectrometry.

This wide array of resources has proven to be necessary, as my projects have ranged from inside my domain knowledge to well outside of it. Though I came in with basic metallurgy knowledge from my courses and some technical skills, I had quite a bit to learn to keep up.

This summer was broadly focused on three separate projects with two different mentors. The work ranged from data analysis to lab work to technical report writing. My file directory and desk were cluttered with macro-enabled spreadsheets and fracture specimens in equal measure. Some days were spent at my computer, while others were spent entirely in front of the scanning electron microscope (SEM). The variety of work struck a good balance between being interesting without being overwhelming.

The first project was developing a pipeline and tool to assist with inclusion analysis. It builds off the ASTM E45 field rating method and includes additional outputs such as size distributions, ternary diagrams, and greater specificity in composition sorting based on

SEM-energy-dispersive x-ray spectroscopy (EDS) results. This project has taught me many valuable technical skills in data analytics as well as programming in Excel and Visual Basic.

The second project was characterizing oxide buildup on stopper rods. This was a unique project because this buildup has not been studied in-depth before. I have gotten better not just at using the SEM but also repairing it.

The final project was a failure analysis on a set of cylinder cap screws. This was a great opportunity to learn more about the field of fracture mechanics which I was not familiar with prior. It took me out of my comfort zone, but it was fascinating to learn the meaning behind various fracture features to determine the failure mode and future mitigation strategies.

All in all, I am very grateful I had the opportunity to work with U. S. Steel this past summer, and I am grateful that the AIST Steel Intern Scholarship gave me the means to do so. I intend to continue my internship into the fall semester so I hope to continue learning as much as I can.



#### Final Call to Enter the 2026 Real Steel Video Contest!

Are you a high school or university student with a creative spark and an interest in a career in steel? Don't miss your chance to enter the 2026 AIST Foundation Real Steel Video Contest and compete for prizes up to US\$3,000!

This year's theme, "Steel — From the Gen Z Perspective," challenges students to explore the modern steel industry and bring it to life in an original, three-minute video. It's your opportunity to showcase your research, creativity and point of view to a global audience.

Submission forms are due 31 October 2025. Videos are due 31 December 2025.

Visit AIST.org/RealSteelVideo to enter and view the official contest rules.

#### Free Pizza, Real Opportunities — Apply for an AIST Pizza Grant

Planning your next Material Advantage chapter meeting? Make it a slice above the rest with an AIST Pizza Grant! Student chapters can receive up to US\$150 in reimbursement for food and beverages when hosting a meeting that includes a discussion about AIST programs and opportunities in the steel industry.

It's the perfect recipe: great food, meaningful conversations and a chance to connect your peers with real-world opportunities in steel. One pizza grant can be used per chapter per semester.

Don't miss out—learn more and apply today at AIST.org/students-faculty/training-travel-funds/pizza-grant.



Students from the Indian Institute of Technology met on 10 March 2025 to learn about AIST opportunities.

#### Don't Forget to Renew Your Membership

Your Material Advantage membership is the key to accessing exclusive resources that will help jump-start your career in materials science. Material Advantage members can take advantage of networking opportunities, conference registration discounts, prestigious scholarships and more!

Plus, all active Material Advantage Members also receive a complimentary year of AIST membership after graduation! Renew your membership for 2026 to retain your benefits and stay in touch with the materials science and engineering community.

Head to Material Advantage.org and renew your membership today!