



AIST Young Professionals



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What first interested you about learning more about the steel industry?

My interest in the steel industry began at California State Polytechnic University, Pomona (Cal Poly Pomona). In a materials engineering laboratory course, we heat-treated steels, prepared metallographic samples, and examined microstructural transformations under a microscope. I was fascinated by how small changes in a material's structure could dramatically affect its strength and performance.

As I learned more, I realized how essential steel is to modern society. From infrastructure and

transportation to manufacturing and energy, steel plays a critical role in shaping the world around us. The combination of science, engineering, and real-world impact inspired me to pursue a career in the industry.

Describe the coursework and degrees that you have obtained. Did you participate in any of AIST's programs or attend AIST events as a student?

I earned both my Bachelor of Science and Master of Science degrees in Materials Engineering from Cal Poly Pomona. During my undergraduate studies, I participated in research focused on the corrosion behavior of various alloys, particularly ferrous-based materials.

Outside the classroom, I was actively involved in Materials Advantage and served as president of the university's corrosion club, formerly NACE and now AMPP. While our department did not have an AIST student chapter, we frequently collaborated with industry organizations and participated in events, including a memorable plant tour at California Steel Industries in Fontana, California.

Have any AIST programs assisted with your career advancement?

Absolutely. Professional organizations such as AIST helped broaden my understanding of materials processing industries and provided valuable networking opportunities early in my career.

Through student organizations and industry events, I attended plant tours, technical presentations, conferences, and outreach activities. These experiences helped me connect with industry professionals, develop leadership skills, and gain a clearer understanding of career opportunities within the steel industry.

As a young professional, what have been the most valuable benefits of your involvement with AIST?

One of the most valuable benefits has been staying informed about technological advancements and industry trends. AIST provides opportunities to learn about innovations in steelmaking, sustainability, automation, and operational excellence.

Equally important has been the opportunity to network with professionals across the industry. Learning from experienced



peers and industry leaders has helped me grow both technically and professionally.

Have you had any mentors that have assisted with your career development so far?

I have been fortunate to have many mentors throughout my academic and professional journey. I began my career as a metallurgist at the Hot Strip Mill at Nucor California Steel Industries, where experienced coworkers and leaders helped guide my development.

They taught me not only technical knowledge and best practices, but also the importance of safety, teamwork, communication, and maintaining a positive attitude. What I appreciate most is their willingness to invest time in helping others succeed. Their mentorship has had a lasting impact on my growth, and I hope to provide the same support to future generations of engineers.

What advice would you give to students considering a career in the steel industry?

Get involved beyond the classroom. Participate in research projects, internships, plant tours, student organizations, and technical conferences whenever possible.

Many of the opportunities that shaped my career came from professors and mentors who connected me with industry projects. Through undergraduate corrosion

research, I was introduced to professionals at California Steel Industries, which ultimately helped create a pathway into the steel industry. Building relationships and gaining practical experience can open doors that may not otherwise be visible.

What do you find unique and interesting about the steel industry? What do you enjoy most about it?

Steel is one of the most important materials in modern society, and its applications are everywhere. What makes the industry especially exciting is the combination of metallurgy, engineering, technology, and continuous innovation.

The steel industry is evolving rapidly through advanced automation, artificial intelligence, digitalization, and sustainability initiatives. These developments are improving safety, efficiency, and environmental performance while creating exciting opportunities for young engineers.

What I enjoy most, however, is the people. The industry brings together experienced professionals who generously share their knowledge and younger generations who bring new ideas and perspectives. That combination of mentorship, innovation, and opportunity makes the steel industry an exciting place to build a career and contribute to its future. ♦

Are you a steel professional age 35 or younger?

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For more information, visit AIST.org/membership or contact Hilary Collins at +1.724.814.3022 or hcollins@aist.org.