

# AIST Young Professionals

As an undergraduate, I studied chemistry at Virginia Tech. By my sophomore year, I knew I enjoyed the subject, but I did not want to spend my career in a lab. Then I toured my first steel mill in Decatur, Ala., USA. I was fascinated by the large-scale chemical reactions and thermodynamics of the meltshop and knew this was a field I wanted to explore.

I interned with Nucor Steel in various meltshops for three summers. The first two summers, I worked at the LMF on several interesting projects, including a temperature and alloy model. During my third internship, I worked primarily with the EAF, studying and modifying a value-in-use model. It was my work at the electric arc furnace that sparked my interest for graduate research in DRI.

I attended Carnegie Mellon University for a research-based master's degree in material science. At CMU, I performed my research through the Center for Iron and Steel Research and focused on high-carbon DRI and carbon transfer during melting in an EAF. The development, processing and use of alternative iron sources for the electric arc furnace is where I see my future in the steel industry. It is important to understand how the quality of alternative iron sources affects our furnaces and the production of high-quality steels.

My experience as an intern was invaluable to the development of my career. At Nucor, I received hands-on experience with projects that could have a real effect on our operations. Not all industries or companies allow you to play such an important role as a student, and I urge any students interested in the steel industry to consider an internship.

During graduate school I got involved with AIST. I went to Pittsburgh Member Chapter dinner meetings, attended the Electric Steelmaking training course and presented the results of my research at AISTech. Through the Steel to Students program, I took part in a training course practically free of cost.

As a young professional, I joined the Electric Steelmaking Technology Committee, and it has helped me establish contacts across the country. Joining a Technology Committee has been a great way to establish contacts within the steel industry. Through the committee, I participated in the AIST EAF Study Tour in Brazil, which was a unique learning experience. Our tour group included a variety of steel producers and vendors. The wealth of knowledge that was shared during the study tour was incomparable to any other development opportunity in the steel industry. I would suggest an AIST study tour to anyone who has the chance.

I am currently a teammate at Nucor, working on several unique projects at our DRI facility in Louisiana. We have a great team in Louisiana, and being able to contribute to process improvements at a world-class DRI facility is an exciting way to help pave the future of the steel industry.

I plan to stay actively involved in AIST throughout my career in the steel industry. AIST has opened several doors for me in my career, and I highly encourage everyone out there, whether you are new to the industry or a veteran, to get actively involved with AIST and all it has to offer.



**Lauren Jellison**  
process metallurgist,  
Nucor Steel



*To advance the future of the iron and steel industry, it is imperative that we support the younger generation. AIST interviewed Lauren Jellison, a young professional member employed at Nucor Steel, about her experience with AIST and her impressions of the steel industry.*



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