AIST Young Professionals

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

I was exposed to the industry at a young age because my father is a metallurgist. While this got me curious about the industry, my interest really sparked during my first internship at Allegheny Technologies Inc. between my sophomore and junior year of college. I interned as a process engineer, working with the team at the slitting lines, as well as the Z-mill. Over those three months, I was able to peek into the world of steel and learn about all the factors that go into a smooth day of operation. From learning about work instructions, process parameters, product grades, product releases, quality holds, etc., my eyes were opened to how much effort and engineering goes into steel production. My interest continued to increase when I got the opportunity to intern with Steel Dynamics at the Columbia City Structural and Rail Division the following summer. I interned in the meltshop, where I learned about scrap optimization/recipes and slag analysis.

People say once you start in the steel industry, you never leave, and they aren't kidding! I will never forget my tour through the finishing plant, watching a coil get slit for the first time or standing on the deck watching a heat get arced for the very first time. To work in an industry that produces such a wide variety of material/product for so many different end uses is inspiring, and it was the combination of these two internship experiences that confirmed that I want to spend my life working in the steel 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 my B.S. degree in materials science and engineering from The Ohio State University. The first two years of coursework involved general engineering courses including physics, chemistry, calculus, intro to materials, MATLAB, etc. During my third year I declared my specialty as metals (rather than ceramics or polymers), and from there my coursework got more specific into metallurgy, which included classes such as failure analysis, structural characterizations of materials, SEM lab, thermodynamics, and an introduction to steel production (my favorite class!). As a student I did not participate in any AIST programs or attend any events, but I was introduced to AIST by my father and uncle. I have been a member since my junior year.

Have any AIST programs assisted with your career advancement?

Most definitely! Both my junior and senior year I was awarded the AIST Foundation Steel Intern Scholarship. During my 5 years in the industry, I have had the pleasure of attending two AISTechs as well as the Fundamentals of Hot Rolling and the Fundamentals of Cold Rolling courses. I learned so much at AISTech by attending the presentations, talking with the various suppliers, and meeting other producers within the industry who work at steel mills around the world. The opportunity to hear about the latest advancements in the steel industry allows me to continuously grow my knowledge and build connections with others, which I believe correlates to career advancement.

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

In addition to the continuous learning that I gain from AIST, the ability to network and meet so many different people within the industry is one of the most beneficial elements of

AIST. At each AISTech I attended, I had the pleasure of attending the Young Professionals and Women in Steel professional development programs, the Hot Sheet Rolling Technology Committee, and the Cold Sheet Rolling Technology Committee, where I met great people that I could really connect with. It is incredible to see so many other people that have the same passion for the steel industry. I think one of the most beautiful things about AIST is that if you are stumped about a problem at your mill, you can reach out to one of the contacts you make at AIST, and more often than not they are willing to help out. I have even participated in events at AISTech where someone will ask a question to the group, and everyone will try to work together and pitch possible solutions. It is so inspiring to be in a room full of people who are employed at different companies, all working together to help someone resolve an issue. I believe the steel industry is unique in that way.

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

I have been fortunate to have had mentors that have assisted in my career development at multiple different points of my career so far. At my first internship, my boss mentored me by teaching me the importance of taking a second for yourself during lunch to reset. He encouraged going to a park, or for a walk, etc. By doing this reset, I found it can help settle your mind and bring clarity rather than being on a constant run trying to do as much as possible as quickly as possible. At my second internship, I had a mentor who taught me the importance of relationships with those you work with. It is much easier, and much more enjoyable, to work with people you have a good relationship with regardless of who they are or what department you are in. Everyone at the company is a friend. At my current job, I have had three different mentors that taught me the importance of asking questions, digging into problems and stopping at nothing to find the solution to the problem. They also taught me that both drive and honest work will get you far. All these mentors, and the lessons they have taught me, have shaped me into who I am today, and I am extremely thankful that they spent time teaching/mentoring me. I am always striving to learn more and better myself as I continue to grow.

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

I highly recommend trying to get internship experience. The steel industry is vast, and there are a lot of different ways to make an impact in this industry, whether it be supplying equipment/materials, producing steel or R&D. It was during my first internship that I learned that I loved process engineering and found interest in metal processing, and it was at my second internship that I found my passion in steel production. While I enjoyed school and gained a lot of knowledge throughout my coursework, I have gained the most applicable knowledge out in the field talking with the operators. The operators who run the equipment and deal with the material all day every day can teach you things that they do not have courses for. In most school problems, the question assumes "perfect atmosphere," and out in the field I have yet to find a perfect atmosphere.

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

I love how reliable, versatile and innovative steel is. It is so interesting to see how a steel mill can produce a variety of different products based on chemistry and process parameters. These various products then get sold for various applications that are used all around us. Whether steel is being used for structural applications like railroads, I-beams, joists, tubing or in household items like refrigerators, car pieces, safes, basketball hoops, etc., it is fun to have an impact on that process. In addition to all that, steel is one of the most recyclable materials on earth. ✦