

Grant Recipient Report

Steel Professor Grant

Bryan Webler, Carnegie Mellon University

This project focused on engaging undergraduate students in research related to steel processing. Topics have ranged from inclusion control, continuous casting and even additive manufacturing.

AIST Foundation funding has been used to support undergraduate research. During summer 2022, the Steel Professor funds supported Rahmir Burrell, who was performing automated inclusion analysis of vacuum induction melted steels. During the fall 2022 and spring 2023 semesters, students worked on characterization of microstructures in advanced high-strength steel slabs and designing mechanical behavior testing methods.

A number of events and activities were held in the 2022–2023 academic year. AIST Foundation Steel Professor Nilesh Kumar from the University of Alabama visited Carnegie Mellon University (CMU) and gave a seminar in October 2022. Webler taught part of AIST's The Making, Shaping and Treating of Steel: 101 course in November 2022. In May 2023, seven students from CMU attended AISTech including three new Ph.D. students — one of which won the truck giveaway!



Students interacted with the steel industry at the Center for Iron and Steel Research (CISR) biannual review meetings, AISTech, and MS&T. Webler also continued teaching The Making, Shaping, and Treating of Steel: 101 course this year. ♦