

## Grant Recipient Report

# Steel Professor Grant

Nilesh Kumar, University of Alabama

The AIST Foundation Steel Professor award has allowed Dr. Kumar to continue organizing and supporting events and activities such as Steel Day, guest lectures to promote AIST Foundation's steel-related scholarships and training opportunities, guest lecture on steels by professionals from industry, steel pouring demonstrations, and participation in conferences.

In 2022–2023, the following events and activities were held at the University of Alabama campus to expose staff, faculty, and students to steel and steel-related industry.



- Guest lecture in MTE121 to students on opportunities for students from the AIST Foundation. Kumar gave a 30-minute presentation about Material Advantage, in general, and educational and scholarship opportunities from the AIST Foundation, in particular.
- Steel and Structures Day 2023. The event was attended by the following companies Nucor Steel–Decatur LLC, Outokumpu Stainless Steel USA, ACIPCO, AM/NS Calvert LLC, SSAB Americas, RHI Magnesita, Steel Dynamics Inc. – Flat Roll Group Columbus Division, Scot Forge Co. and CMC.

- During Steel and Structures Day, a steel pouring demonstration was carried out in the university's FEF-certified foundry.
- Several graduate students shared their work through poster presentations with the steel company participants during the Steel and Structures Day event.
- Foundry Day 2023. Students from various departments in the College of Engineering were given the opportunity to cast their own design.

Kumar attended MS&T22 and gave a presentation on an oxide dispersion strengthened ferritic stainless steel. He also attended AISTech 2023.

In addition, he attended AIST Pipe & Tube and Metallurgy — Processing, Products & Applications Technology Committee meetings. He also served as a presenter at AIST's Hot Sheet and Plate Rolling Fundamentals — A Practical Training Seminar held in September 2022.

During the 2022–2023 academic year, Kumar, his graduate students and many undergraduate students had the opportunity to interact with several steel companies during research work, discussion regarding future collaborative work, or internship/co-op/full-time jobs. ♦