## **GRANT RECIPIENT REPORT**

## **JingJing Qing GEORGIA SOUTHERN UNIVERSITY** KENT D. PEASLEE JUNIOR FACULTY AWARD

Project goals of the Kent D. Peaslee Junior Faculty Award include: (1) students from Georgia and the adjacent states can obtain higher-quality engineering education on steel and iron at Georgia Southern University and they will be prepared with knowledge and skills to become the engineers in the steel and iron industry; (2) a greater number of students at Georgia Southern University will take advantage of the training and education programs offered by AIST and plan a future career path in the steel and iron industry; (3) additional students at Georgia Southern University are offered with abundant opportunities to network with the steel and iron industry in the Southeast region and beyond the region for internship, co-op and full-time job; (4) students at Georgia Southern University will have access to steel and iron processing/metallurgy facilities to conduct steel and iron research.

With the AIST Kent Peaslee Junior Faculty Grant, Dr. Qing organized and led various events and activities to enhance the education on steel and iron and promote the steel and iron industry at Georgia Southern University. With the strong support of the local metalcasting industry as well as the Allen-Paulson Computing and Engineering College of Georgia Sothern, a well-equipped metallurgy and analytical lab has been established to pair with the new foundry/metalcasting lab. These labs have been extensively utilized to host research and education activities for Georgia Southern students. Dr. Qing has been working closely with the AIST Foundation



Georgia Southern team at 2021 Foundry Educational Foundation College Industry Conference.

to promote training and scholarship programs among Georgia Southern students. An increasing number of students from Georgia Southern are sponsored attend technical and training conferences (MS&T, AISTech, American Foundry Society (AFS) Metalcasting Congress, AFS regional conferences, and AIST Technology Training Conferences) on iron and steel. Dr. Qing is working actively with local chapters (specifically the AIST Southeast Member Chapter and AFS Southeast) and research committees of technical organizations to host and sponsor events (e.g., chapter annual meetings, casting competitions) for attracting students' interests on steel and iron metallurgy and processing. A steel plant tour has helped Georgia Southern students to identify their interest in steelmaking and "shape" their future career path. Dr. Qing is working closely with the Georgia Southern AFS Student chapter to organize various events and establish strong connections between Georgia Southern students and the iron and steel industry. Outreach activities like a summer camp on metalcasting and lectures for high school students have helped draw greater attention to the engineering education program on steel and iron at Georgia Southern. Curriculum covering topics on steel and iron has been developed, offered and continuously improved to prepare students with necessary knowledge on ferrous metallurgy and processing. A higher population of undergraduate and graduate research assistants are trained to conduct steel and iron research via several research projects under Dr. Qing's supervision.