

Material Advantage---South Dakota Style

By Eric Young

The South Dakota School of Mines and Technology Material Advantage Student Chapter has 60 members and is actively engaged in a wide range of professional, social, and community activities. The chapter has grown in the last several years from approximately 40 members to 60. Typically about half of the members attend our monthly meetings which include lunch. The most popular chapter-sponsored activity is our weekly "Hammer In," which is an open air blacksmithing get together strategically placed at the campus entrance to attract considerable attention. This Friday afternoon activity, which often includes grilled food, is open to everyone on campus and even attracts a few high school students. Students learn the basics from local blacksmiths who volunteer their time. Students then move on to their own projects. While blacksmithing is usually thought of as a ferrous-based profession, copper can also be smithed using many of the same tools and techniques. This fall the chapter sponsored a coppersmith to teach students the art of copper manipulation. Several students participated and their work was put on display around campus, including the art gallery. A novel extension of the blacksmithing program this year was submitting a blacksmith-decorated Christmas tree to the campus Christmas Tree Contest. Each year the student organizations on campus decorate Christmas trees and put them on display for the student body to enjoy and judge. This year was our chapter's first attempt at a Christmas tree. We decided that because we were all metallurgists, the tree should be made of metal as well. About fifteen chapter members collaborated on cutting and welding the tree together, blacksmithing and coppersmithing ornaments, and decorating the tree with lights. The tree was completely student-made and, not surprisingly, won the "Most Unique" award. Many



of the faculty commented on the success of the Christmas tree project. It gave our blacksmiths a defined project to work on while our more handy people were able to build their own tree. A contest for the top ten ornaments on the tree was sponsored by the Student Chapter and the winning students earned a small cash prize for their efforts and acknowledgement for their work. Recently four Chapter students participated in a question-answer session at a local Science Café, a Public Radio Program held each month around the state. The students presented information about the department's senior/junior design projects which involves producing a Samurai Sword, starting with iron ore. Our link to the community through public broadcasting has been strengthened even while the project is still in production for Public Television. Questions from attendees about metallurgy and the design project were answered

during the live broadcast. Our chapter will participate in more of these sessions in the future to increase community awareness in our field. As with many chapters, our students have adopted a two-mile stretch of road just outside of Rapid City, SD. Every fall and spring students enjoy each other's company during the roadside cleanups and following lunch. This is a great way for some of the upperclassmen to meet incoming freshmen and visit with them about Material Advantage. Every spring the Chapter hosts approximately fifteen underprivileged children at a local fun center, where they enjoy go-karting, laser tag, and drive bumper cars. Our chapter feels strongly that it is important to give back to the community that has offered us so many wonderful opportunities. Interaction on the academic and community levels is important, but integration with industrial partners is a key goal of our chapter members. Our chapter partners with many companies to provide a deeper insight on the profession of Metallurgical Engineering. There are yearly tours of Nucor Steel-Nebraska, Pacer Minerals, and a local cladding and laser deposition company, RPM. Along with, tours, alumni from several companies give presentations about both their company and the advancement of their careers. This year we were pleased to have the TMS President and department alumnus, Dr. Ray Peterson, speak to us on the topic of aluminum recycling. Our Chapter holds an Annual Banquet, Resume Review Sessions, and numerous outreach activities both on and off campus. The Chapter is committed to excellence in education, service to the community, and close liaison with our sponsoring professional societies TMS, ASM, AIST, and ACeRS, as well as industry. We are always looking forward to improving and growing our chapter.

