


# PROFESSIONAL PREFACE

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The Newsletter for Student Members of The Minerals, Metals & Materials Society

## WELCOME!

Perhaps you have heard the old saying, "It's not what you know, it's who you know." This line of thinking certainly holds true when you embark on the segment of your job search that requires professional references. During the 2006–2007 school year, TMS has several events and contests planned that will not only assist you in developing the skills needed to secure employment, but will also facilitate opportunities for you, our student members, to meet and become acquainted with professional leaders in industry, government labs, and academia. This invaluable interaction is something you won't learn in any classroom.

If you have any questions about your TMS membership through the Material Advantage partnership, please don't hesitate to let me know. Best wishes for a great semester and taking the next step in your career. TMS is your **Professional Partner for Career Advancement!**

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## POSTER CONTEST EXPANDS TO INCLUDE TMS 50th ANNIVERSARY ESSAY CONTEST

In 2007, TMS celebrates its 50th Anniversary as a member society of the American Institute of Mining, Metallurgical, and Petroleum Engineers. In honor of this occasion, the society is holding a one-time essay contest at the 2007 TMS Annual Meeting in Orlando, Florida. The contest is open to all graduate and undergraduate students who participate in the 2007 TMS Technical Division Student Poster Contest.

Meant to build on the research work that students present in their posters, essays should address how the students plans to continue their research, the results they hope to achieve, potential industrial or commercial applications of their work, and the future impact of their work in the field or society in general. The winning essay will receive \$2,500.

The 2007 meeting will mark the second annual TMS Technical Division Student Poster Contest. Last year's contest attracted the participation of 56 students. Nine students came away from the competition with awards ranging from \$500 to \$3,000. Similar prizes will be offered for this year's competition: one best-in-show award of \$2,500, \$500 awards for the best undergraduate student posters in each of the five TMS technical divisions, \$500 awards for the best graduate student posters in each of the five TMS technical divisions, and one \$2,500 prize for the best student essay.

In addition, the two students whose papers are judged to be best in the overall competition will be named TMS Student Ambassadors and will represent TMS at an international conference. In 2006, winning students traveled to the Junior Euromat conference in Lausanne, Switzerland. (For more on this trip, see page 10 of this issue of *JOM*.) In 2007, students will win a trip to the Sixth Pacific Rim International Conference on Advanced Materials and Processing, which is scheduled to take place November 6–9 in Jeju Island, Korea.

To participate in the student poster contest and the 50th Anniversary essay contest, visit [cmsplus.tms.org](http://cmsplus.tms.org). Select the 2007 TMS Annual Meeting and then scroll down to select the "Technical Division Student Poster Contest." You will need to log in to the system (using your Material Advantage member number as your username and your birthdate as a password) in order to submit an abstract for your poster. Poster abstracts and essays must be submitted by December 15.

## WE'RE GOING TO DISNEY WORLD!

And you're invited to join us. The 2007 TMS Annual Meeting will be held at the Swan and Dolphin Hotel on Walt Disney World property in Orlando, Florida. To make the trip more affordable for students, TMS offers a limited number of \$500 travel grants to students planning to attend the conference.

Travel grants are currently offered by three of the TMS technical divisions: the Electronic, Magnetic & Photonic Materials Division; the Materials Processing and Manufacturing Division; and the Structural Materials Division. Students should apply for a grant from the division that best suits their field of study and should indicate the technical symposia and other programming elements that most interest them at the upcoming meeting.

For more information, visit the "Additional Contests" section of [www.tms.org/Students/Awards.html](http://www.tms.org/Students/Awards.html). Applications must be submitted by November 15.

## STUDENTS COMPETE FOR \$1,500 PRIZE AT 2007 MATERIALS BOWL

It's not exactly *Jeopardy*, but it's close. At the 2007 TMS Annual Meeting, TMS will hold the first annual Materials Bowl, a game-show-like competition (complete with buzzers) that pits top students from Material Advantage chapters against one another in a battle of wits.

The Materials Bowl will be a trivia contest that tests the knowledge of students on a wide range of materials science and engineering and general science topics. Each Material Advantage chapter will be able to enter one team of four students in the competition, with no more than two graduate-level students on each team. Because the questions will cover a variety of areas, team members should represent a broad range of knowledge.

The first elimination and semi-final rounds of the competition will be held throughout the day on Sunday, February 25, with the championship match held during the Sunday evening Student Networking Mixer. The winning team will receive \$1,500 for its student chapter, and individual members of the winning team will receive an additional \$250 each. The runner-up team will receive \$1,000 for its student chapter.

To participate, fill out the Materials Bowl application on the TMS student web site ([www.tms.org/Students/Awards.html](http://www.tms.org/Students/Awards.html), under "Additional Contests") by November 15. The competition will be held at the 2007 TMS Annual Meeting at the Swan and Dolphin Hotel (on Walt Disney property) in Orlando, Florida. The conference runs February 25–March 1.

## DID YOU KNOW . . . ?

In July, the U.S. Department of Education opened up two new grant programs geared toward college students studying math, science, technology, and foreign languages. The programs offer grants of \$750–\$4,000 to qualified undergraduate students. For more information, visit [www.ed.gov/news/pressreleases/2006/06/06292006a.html](http://www.ed.gov/news/pressreleases/2006/06/06292006a.html).

## STUDENT CHAPTER SPOTLIGHT: SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY

Part professional development organization, part social club, and part community service group, the South Dakota School of Mines and Technology (SDSMT) is a well-rounded Material Advantage chapter.

Learning more about their future profession is an important goal of the group. To that end, the SDSMT group brings in technical speakers to address students, tours local plants, and attends meetings sponsored by TMS and other Material Advantage organizations. In September, the group planned to try out a new form of programming by participating in a TMS-sponsored web cast on recycling issues. TMS web casts are set up so that groups can listen to presentations and pose questions to presenters from remote locations.

"This seemed to be a good way to open students' eyes to what professional members are doing," said Cassandra Degen, president of the SDSMT chapter.

Community service is also a key element of the chapter's activities. Some of these activities are directly related to materials science and engineering. For example, in 2005, the group held three separate outreach events to interest K-12 students in materials, giving talks and providing demonstrations of interesting materials. But other activities are simply designed to benefit the local community. Last year, the SDSMT students treated a group of underprivileged children to a day at a local amusement park. The chapter also participated in a book-making event at their local public library to promote reading and writing in elementary-age children. (Pictured is Shelley Peterson, former vice president of the SDSMT Material Advantage chapter, working with elementary school children at the Rapid City Public Library.) The SDSMT group plans to continue its community service activities by cleaning up highways, participating in a local food drive, and working with boy scout troops this semester.

In recognition of its achievements as a chapter, the Material Advantage program named SDSMT a chapter of excellence in 2006. In recognition of their service to the community, the South Dakota Board of Regents nominated the group for a community service award.

Last year, the student chapter discovered a new tool for recruiting members. After a trip to a local blacksmiths' guild generated enthusiasm from students of all levels, the chapter members decided to purchase equipment so they could practice blacksmithing on campus. With the start of the 2006 school year, the chapter began holding weekly blacksmithing classes. More than 25 freshmen attended the first classes.

"We are very excited to have this new capability and think it is beginning to be one of the best tools to increase interest in our chapter," the group wrote in its annual report.

Keeping freshmen involved in chapter activities is important, according to Degen. That's why the chapter encourages freshmen to attend monthly meetings to discuss and organize upcoming events. It helps the younger students get to know the upperclassmen and helps the freshmen students to become more familiar with the program and to meet other students in the department.



## MATERIAL ADVANTAGE CHAPTERS WIN WORLD MATERIALS DAY AWARDS

For their outreach efforts to students in grades K-12, three Material Advantage student chapters have been recognized with 2006 World Materials Day awards: Florida International University, the University of Connecticut, and the University of Washington.

World Materials Day, organized by the International Organization of Materials, Metals, and Minerals Societies (IOMMMS), is a worldwide recognition of the importance of materials science and engineering in the community. Through the World Materials Day competition, the IOMMMS encourages students throughout the world to go out into their communities to promote the materials profession.

The award takes different forms in different countries. In India, organizations promote materials by holding a materials quiz in high schools, with the winning students taking home prizes. In China and Japan, awards are given to outstanding papers written by students in the materials field. In the United States, TMS, ASM International, and the Association for Iron & Steel Technology reward student chapters from their joint Material Advantage program for conducting outreach projects for K-12 students. The winning chapters each receive \$500 to further their outreach work and chapter activities.

These groups will be honored during the Student Awards Ceremony at the Materials Science and Technology 2006 conference, to be held October 15-19 in Cincinnati, Ohio.

## TMS NAMES INTERNATIONAL SYMPOSIUM ON SUPERALLOYS SCHOLARS

Two students will be honored at October's Materials Science and Technology 2006 (MS&T '06) conference with scholarships from the International Symposium on Superalloys. Each student receives a \$2,000 cash scholarship and up to \$500 to travel to MS&T '06 in Cincinnati, Ohio. The award is available to undergraduate and graduate students majoring in metallurgical and/or materials science and engineering with an emphasis on high-temperature, high-performance materials. This year's winners are:



### Christopher Roberts, Carnegie Mellon

**University:** "It is a great honor to receive the International Symposium on Superalloys Scholarship. I would like to acknowledge TMS for offering the superalloys scholarship and the related symposia and conferences for fellow researchers to disseminate important findings. I would like to thank my current and previous mentors for providing me with the opportunities within the high-temperature alloy research sector. In addition, the award is a reminder of how enjoyable superalloy research is on a personal level and a motivation to continue my contributions to the materials field."



### Andrew Wasson, University of Florida:

"Receiving this award for the TMS Superalloys Scholarship is a tremendous honor. As a student studying nickel-based superalloys, this award serves to further my commitment to my research and allows me to broaden my knowledge base at a professional conference."

To view additional student scholarships and awards available through TMS, visit the student award web site at [www.tms.org/Students/Awards.html](http://www.tms.org/Students/Awards.html). TMS offers more than \$50,000 annually in scholarships and awards. Applications for most TMS scholarships are due March 15.

## FOR MORE INFORMATION . . .

. . . On participating in TMS student activities, contact Chris McKelvey, TMS member services & student affairs coordinator, at [cmckelvey@tms.org](mailto:cmckelvey@tms.org).