

Member News



Updates on friends and colleagues in the materials community

Ganpati Ramanath Wins Research Award



Ganpati Ramanath

Ganpati Ramanath, Rensselaer Polytechnic Institute (RPI) Professor, has been named a winner of the Friedrich Wilhelm Bessel Research Award by the Alexander von Humboldt Foundation in Germany. Given in recognition of Ramanath's research record and accomplishments in the fields of nanomaterials and interfaces, the award includes an invitation to spend up to one year in Germany as a visiting scholar to collaborate on long-term research projects. The award

specifically cites Ramanath for his contributions to the "discovery of new molecularly directed approaches to synthesize inorganic nanomaterials and tailor their interfaces, and the unearthing of atomistic structure-chemistry-processing-property relationships, to realize novel materials and properties for energy and electronics."

The Humboldt Foundation grants up to 25 Friedrich Wilhelm Bessel Research Awards annually. The honor is reserved for scientists and scholars who are internationally renowned in their fields, who completed their doctorates less than 18 years ago, and who are expected to continue producing leading-edge achievements.

Steven Zinkle Named MRS Fellow



Steven Zinkle

Steven Zinkle, senior materials researcher and Corporate Fellow, Oak Ridge National Laboratory Nuclear Science and Engineering Directorate, was inducted as a 2013 Fellow of the Materials Research Society (MRS) in April. He was recognized for his "pioneering contributions to the understanding of radiation effects in materials and for advancing the scientific basis of performance limits for structural materials in advanced nuclear energy systems."

Zinkle was also named a TMS Fellow in 2011.

Subra Suresh Begins Appointment at CMU



Subra Suresh

Subra Suresh will formally assume the office of president of Carnegie Mellon University (CMU), Pittsburgh, on July 1. He is leaving the U.S. National Science Foundation (NSF), where he has served as director since being unanimously con-

firmed by the U.S. Senate in September 2010.

Prior to the NSF, Suresh was the dean of the School of Engineering and the Vannevar Bush Professor of Engineering at the Massachusetts Institute of Technology (MIT). He has co-authored more than 240 journal articles, registered 21 patents, and written three materials science books. His numerous awards and honors include being named a TMS Fellow in 2000.

Nominations Open for AIME James Douglas Medal

Patrick Taylor, the George S. Ansell Distinguished Professor of Chemical Metallurgy, Colorado School of Mines, was named the winner of the 2013 AIME James Douglas Gold Medal in recognition of "his distinguished career contributions and accomplishments in mineral processing and extractive metallurgy and their application in waste treatment, recycling, and reactor design." Taylor is also the recipient of the TMS 2010 Extraction & Processing Division (EPD) Service Award and was the 2006 EPD Distinguished Lecturer.

Established in 1922, the Douglas Medal honors distinguished achievement in nonferrous metallurgy, including both the beneficiation of ores and the alloying and utilization of nonfer-

rous metals. It is a joint award made by two of AIME's (American Institute of Mining, Metallurgical, and Petroleum Engineers) sister societies—TMS and the Society for Mining, Metallurgy, and Exploration (SME). Judging and awarding of the Douglas Medal is managed by TMS's Extraction and Processing Division and SME's Mineral and Metallurgical Processing Division.

Nominations are being accepted for the 2014 Douglas Medal through June 1. The nomination form can be accessed at <http://www.smenet.org/docs/General/2012AwardNominationForm.pdf>. To review the guidelines, go to http://www.aimehq.org/sites/default/files/aime_guidelines_douglas_award.pdf.



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Access and complete the "Recent Graduate Membership Application" at <http://www.tms.org/society/PDFs/2012RecentGradApplication.pdf>. Please do not hesitate to contact TMS staff at members@tms.org with any questions you have.



TMS Member Profiles

Meet a Member: Rachel DeLucas Logs 2,000 Miles and Countless Memories on the Appalachian Trail

By Lynne Robinson

The Appalachian Trail rolls for more than 2,000 verdant miles from Springer Mountain, Georgia, to Mount Katahdin, Maine. While numerous day hikers and weekend backpackers tackle the often challenging topography one section at a time, there is a small, but mighty, contingent of adventurers—known as “thru-hikers”—who attempt to complete the “A.T.” from end to end on a single trip. Rachel DeLucas, a research engineer at the Massachusetts Institute of Technology (MIT), is one of those who answered the challenge, traversing every inch of the A.T. on foot from April 1 to September 26, 2011.

Enjoying the outdoors was an important part of DeLucas’s life growing up, and she holds particularly fond memories of annual family camping trips on North Padre Island, Texas. She developed her love of hiking when she was introduced to the wonders of New Hampshire’s White Mountains through MIT’s Outing Club. Petek Saracoglu, a friend DeLucas met through that

organization, actually brought up the notion of attempting the Appalachian Trail thru-hike.

“I admit it was a challenge for her to convince me,” said DeLucas. “I had the excuses of a full-time job, mortgage, and an awesome husband, which are all pretty tough to leave for six months.” Intrigued by what she read in the steady stream of used books that Saracoglu mailed her on thru-hiking, DeLucas “ran the numbers one last time and decided it would be possible to join in the fun.” She and Saracoglu both quit their jobs and left their lives behind in March 2011 to hit the trail.

Thru-hikers typically do not camp out every single night, DeLucas explained, due to the stress and duration of the journey. Every three to seven days she and Saracoglu would stop at a town near a crossroads or trailhead to resupply, bathe, and recharge both themselves and their mobile devices. In between stops, they made their beds outdoors, sharing a tent and other gear in the early weeks of their adventure.

“This can prove very quickly whether or not two people are truly companionable,” DeLucas quipped.

DeLucas notes that the memories she collected on the A.T. are too numerous to count. “We met tons of amazing, interesting, and generous people along the way, and faced exhaustion, hunger, and inclement weather,” she said. During the last leg of their odyssey, they were compelled to take shelter for three days in a hostel near the New Hampshire border while Hurricane Irene pounded the northeastern United States. Once the storm passed, they hiked into their last state, Maine.

“The condition of the trail was less-than-ideal, and we still had to hike the toughest mile of the trail—a boulder-filled scramble in the Mahoosuc range,” recalled DeLucas. “The trail was essentially an ankle-to-calf deep mess of boggy muck. But, we trudged on, happy to embrace the wildness of the terrain and savor the journey before the big finish on Katahdin.”

Today, DeLucas is working on developing sustainable processes for extractive metallurgy. While they seem somewhat removed from the laboratory, her experiences on the A.T. and other wilderness trails have significantly shaped her professional interests. “My outdoor pursuits have allowed me to reconnect with some of the reasons why I am driven to be an engineer,” she said. “Issues of conservation and sustainability are very important to the direction I’d like to take my career. Having frequent interaction with the wilderness and natural resources that I am trying to protect reminds me why the work that I do is relevant. It’s the spark that gets the fire going.”



(Above) DeLucas completed the last phase of her thru-hike in the wake of Hurricane Irene. (Left) DeLucas and Saracoglu celebrate at the end of the trail.

Each month, JOM profiles a TMS member and his or her activities both in and out of the realm of materials science and engineering. To suggest a candidate for this feature, contact Lynne Robinson at lrobinson@tms.org.