ASM MATERIALS EDUCATION FOUNDATION
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ASM MATERIALS EDUCATION FOUNDATION ANNOUNCES THE WINNERS OF THE 2018 MATERIALS GENOME TOOLKIT CONTEST

ASM MEF helps drive technological leadership in design and manufacturing by awarding state-of-the-art materials analysis software to three US engineering schools.

MATERIALS PARK, OHIO—The ASM Materials Education Foundation is pleased to announce the winners of the 2018 ASM Materials Genome Toolkit competition. As determined by an independent review committee, the undergraduate engineering departments at Georgia Institute of Technology, Louisiana Technological University, Montana Technological University, and Worcester Polytechnic Institute receive a three-year site license for a suite of Thermo-Calc software tools intended to aid in the instruction of computational materials design, an emerging engineering practice deemed essential to the success of the US Materials Genome Initiative (MGI) and global leadership in manufacturing.

The winners were selected based on how they plan to integrate the toolkit into their undergraduate curriculum and in senior capstone projects designated for the ASM MEF Undergraduate Design Competition. Meaningful use of the analytical software – consisting of thermodynamic and diffusion modeling codes and a precipitation simulator – will expose students to the innermost workings of metals and alloys, as well as the relationships linking microstructure development and material properties. It also gives students hands-on experience with some of the most advanced tools and techniques used in industry today.

Sixteen engineering schools have now been awarded Materials Genome Toolkits thanks to Thermo-Calc Software AB and the NIST-sponsored Center for Hierarchical Materials Design (CHiMaD). These schools – Alfred University, California State Polytechnic University in Pomona, Carnegie Mellon University, Case Western Reserve University, Michigan Technological University, University of Maryland, Missouri University of Science & Technology, Oregon State University, University of Florida, University of Maryland, University of Pittsburgh, Virginia Polytechnic Institute and State University, Wright State University, and the 2018 winners – are now part of a trailblazing group, leading the way in engineering education and the development of a technological workforce equipped for the opportunities and challenges ahead.

"We are pleased with the success the Toolkit program is having in bringing the Materials Genome to a growing number of undergraduate programs," says Gregory B. Olson, FASM, who came up with the Toolkit concept in 2009 while serving on the ASM Materials Education Foundation's Action in Education Committee (AEC) and its subcommittee on Computational Materials Engineering. Olson is a professor at Northwestern University and one of the founders of QuesTek Innovations LLC. He is also co-director of the CHiMaD, serving alongside Peter Voorhees, Northwestern University, and Juan De Pablo, Institute for Molecular Engineering at the University of Chicago.

The ASM Materials Education Foundation provides for the advancement of scientific and engineering knowledge through its support of education and outreach programs. Thanks to the hard work of ASM volunteers, the Foundation is able to provide exciting opportunities for young people, encouraging them to pursue careers in materials, science, and engineering.

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To learn more about ASM Materials Education Foundation, visit asmfoundation.org or call 440.338.5151 to speak with an ASM MEF representative.