SCSU, NHMA PARTNER TO BRING STEM CAREERS INTO CT CLASSROOMS

NEW HAVEN – Science and mathematics educators from various communities in southern Connecticut revved up their engines during the recent fifth annual Materials & Manufacturing Summer Teachers Institute.

One of the highlights of the institute was when the teachers manufactured their own stirling engines, which they placed on top of their coffee mugs. A stirling engine is a closedcycle heat engine that uses cyclic compression and expansion of air to produce energy.

"The exercise enabled the teachers to gain a better understanding of the real-world value of STEM (science, technology, engineering and math), as well as the many career opportunities available in manufacturing. Both are primary purposes of the program," said Christine Broadbridge, co-director of the institute. She serves as dean of the School of Graduate Studies, Research and Innovation at Southern Connecticut State University.

"By demonstrating the practical side of STEM, the teachers are better able to take that knowledge and awareness and develop innovative teaching methods to help inspire and prepare middle and high school students for STEM-related fields," Broadbridge said.

The four-day workshop included general discussions on education and manufacturing topics; the development of lesson plans in small groups with other teachers, hands-on scientific experiences, and tours of schools and area manufacturing firms. It was co-sponsored by Southern Connecticut State University, the New Haven Manufacturers Association (NHMA), the Center for Research on Interface Structures and Phenomena (CRISP) at Yale and Southern (which is a materials research science and engineering center that receives funding from the National Science Foundation), and an array of community partners throughout the region and state.

The institute was coordinated by SCSU, and included hands-on sessions at Platt Tech of Milford, as well as tours at Leed Himmel Industries of Hamden and Assa Abloy Door Security Solutions in New Haven. Nearly 30 teachers participated, including those from school districts such as New Haven, Bridgeport, Milford, Stratford and Hartford.

Speakers included SCSU President Joe Bertolino; Robert Prezant, SCSU provost and vice president for academic affairs; Jim Gildea, director of manufacturing at Bigelow Tea; Kris Lorch, president of Alloy Engineering Company Inc. of Bridgeport; Robert Klancko, partner, Klancko & Klancko, LLC, and co-director of the institute; Dave Tuttle, chairman of manufacturing technologies at Platt Tech; Greg AmEnde, instructor of manufacturing technologies; Drew Most, chairman of manufacturing technologies at Bullard-Havens Tech in Bridgeport; Carol Jenkins, CRISP education and outreach coordinator, and institute coordinator; and various state officials.