

## “Linking Research to Practice” Workshop hosted by CTSR

On August 8-9, 2001 over 130 engineers and scientists from around the world participated in a two-day workshop hosted by the Center for Thermal Spray Research. The theme of the workshop was “linking research to practice” which had the objective of uniting novel and exciting TS research work with industries that have successfully incorporated high level uses and applications of TS within their business.

On the research side, scientists from Princeton, MIT, Stony Brook University, Universitat der Bundeswehr Muenchen Germany, NIST, Idaho National Labs, Sandia National Labs, and the Canadian Research Council presented papers addressing the integration of process science and materials science, coating and mechanical property analysis and mechanisms of failure for high temperature coatings. High level representatives from Federal Mogul, General Electric, Siemens Westinghouse, Rolls Royce, ALCOA, Caterpillar, DLR Germany and Medicoat AG, to name just a few, made technical presentations on how thermal spray was being successfully utilized within their industry for damage tolerance, high temperature applications and for high performance, functional surfaces. Each session clearly brought together industrial leaders and academics that have been at the forefront of high performance processing and characterization of thermal spray overlays.



Along with the five other sessions, a special session dedicated to the memory of Mr. Doug Harris, president of APS Materials Inc. and a man who clearly saw the opportunity for thermal sprayed functional surface years before its time, was held to address the successful utilization of thermal spray for fuel cells, meso-scopic electronic devices and biomaterial applications.

With thermal spray emerging as an innovative and cost effective means for the processing of high performance and functional surfaces there is clearly a need to link the research activities that are being undertaken to the end-users of TS processes. Much of the current thrust seen within the industry owes itself to the extensive research and development which has been conducted by both the academic and industrial users of this highly diverse technology.

An “Introduction to Thermal Spray” class as well as a tour of the thermal spray lab was provided as an option to interested participants. The Center’s spray capabilities including LPPS, HVOF, APS, Combustion, Electric Arc as well as the testing capabilities, including process control were displayed and demonstrated during the tour.

The Center plans to hold its next workshop during the Fall of 2003 when a new 10,000 square foot state-of-the-art building extension housing the CTSR can be unveiled.

**Sampling of Corporate Attendees:** Lockheed Martin – NASA LARC, NIST, Turbine Component Services, Sulzer Metco, GE Power Systems, U.S. Naval Academy, Pratt & Whitney, Wall Colmonoy, Department of Defense, Engelhard Corp., Progressive Technologies, Praxair Surface Technologies, Hayden Corp, GT Equipment Technologies, OSRAM Sylvania, H.C. Starck, ALCOA, Caterpillar, Federal Mogul, Delphi Automotive Systems, COI Ceramics, Chrysalis Technologies, Siemens Westinghouse, Rolls Royce Corp.

