

**OPENING SHOT** Jack Champaigne | Editor | The Shot Peener

# **A Vision Come True**

The Surface Engineering and Advanced Materials Processing Conference held at Purdue University this spring had a special significance to me. I have wanted to establish a shot peening center (now called surface enhancement) at a US university since I hosted the International Conference on Shot Peening in San Francisco in 1996.

Technically, that conference was very successful. During analysis after the conference, however, I was disappointed to recognize that the academic audience had only one person from the USA. It was Professor Ralph Stevens from the University of Iowa, a former student of Henry Fuchs at Stanford. (Mr. Fuchs was the founder of Metal Improvement Company.) I knew Stevens from my participation in the SAE committees. The reason he attended was because I needed a keynote lecturer. The recognition that so many foreign universities were active in shot peening instilled in me a desire to make a change.

I can now say that a change, indeed, is happening. The Center for Surface Enhancement and Engineering (CSEE) was highlighted at the conference. Purdue's CSEE is well on its way to joining the other universities with its world-class facilities, staff and equipment. This is very rewarding. Several projects are already underway such as Media Inspection Using Image Analysis, Weld Enhancement for Infrastructure Using Needle Peening, and Improvements to Fuel Systems Components.

During the conference, participants had the opportunity to engage with the Purdue engineering department's world-class faculty, and commercial and governmental partners. They also learned about Purdue's advanced capabilities and current research in the areas of surface engineering and materials processing.

Another example of the leadership from Purdue is the paper by Brice and Bahr where they share their research on Ti-Based Shot (page 22). Electronics Inc. has done a lot of research on medical device peening (US Patent 7,131,303 Shot Peening of Orthopaedic Implants for Tissue Adhesion) and I see this as an interesting approach to the reduction of contamination in a novel way.



The Purdue School of Materials Engineering hosted more than 50 attendees from over 30 companies for the Surface Engineering and Advanced Materials Processing Conference.

#### THE SHOT PEENER

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## Publisher

Electronics Inc.

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#### The Shot Peener

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