Shared vision

STLE’s relationship with the Tribology Society of India continues to grow.

THE TRIBOLOGY SOCIETY OF INDIA (TSI) is an organization with a vision and mission quite similar to those of STLE. In May 2009 officers from both organizations met in Orlando at the STLE Annual Meeting and began to form the basis of continuing cooperation. This resulted in three days of jointly sponsored education courses in Guragon, India, (near Delhi) in January 2010, followed by more courses in February 2011 at the same location. Our own Dr. Bob Gresham, STLE director of professional development, was the main contact and one of the instructors for these courses.

STLE then was invited to participate in TSI’s 8th International Conference on Industrial Tribology (ICIT) held in Pune, India, Dec. 7-9, 2012. The theme of the conference was Tribology for Sustainable Development. More than 200 tribologists from nine countries attended. During the three days, there were two education courses, three plenary sessions with seven invited speakers, 46 oral technical presentations divided across 16 session topics, 68 poster presentations and 17 exhibitors. In addition, 21 people took the CLS examination before the start of the conference! Dr. Gresham, STLE Past President Dr. Ed Becker and I were invited to speak at this event.

As an indication of the value TSI places on their relationship with STLE, they invited me to open the conference and give the inaugural address on the subject of sustainability. Having spent all my time in the metalworking field, I wondered what I could present on the subject of sustainability that would be meaningful to the wide-ranging group attending this conference. Fortunately, attending our annual meetings, the International Joint Tribology Conference (IJTC), and other STLE-sponsored events had given me ample information for such a talk! Let me give you some examples.

There was Ted McClure’s paper comparing the lubrication value of vegetable oils to petroleum oil on the twist compression test. My visits with STLE corporate members had given me insights into changes they were making to improve sustainability within their operations.

Dr. Ali Erdemir’s excellent paper on Global Energy Consumption Due to Friction in Passenger Cars was a wealth of information (Tribol. Int., 47, 2012, pp 221-234). He showed that 33% of a car’s fuel was used just to overcome friction, and only 21.5% was used to move the car forward.

At the 2012 IJTC, Dr. Erdemir reported that the addition of 1% boric acid nanoparticles to engine oil could reduce coefficient of friction by nearly two-thirds.

Then there is the hydraulic hybrid car being developed by the Center for Compact and Efficient Fluid Power, which was discussed in the February 2012 and October 2012 issues of TLT (available online at www.stle.org). These issues of TLT reported on how hydraulic hybrid vehicles had significant advantages over electric hybrid vehicles, including lighter weight, lower cost, longer useful life, lower safety risks and fewer environmental hazards.

The 2012 IJTC had several papers on sustainable wind energy and how advances in tribology could improve overall operation of these units and forestall gearbox failure. There were also presentations on environmentally friendly, or green, lubricants and ionic liquid lubricants.

After some reflection, I felt heartened at the amount of relevant material that I could use in my talk because of my association with STLE and its members. So the talk at ICIT went off without a hitch—except for the fact that my luggage never arrived at the conference! It ended up in Delhi rather than Pune. Luckily I was able to find a suit and tie at a nearby mall.

During the TSI conference, several people told me that they plan to attend STLE’s 2013 Annual Meeting & Exhibition in Detroit, May 5-9—and some will present papers. I know our members will make them feel very welcome!

The next TSI event will be ASIATRIB, Jan. 27-30, 2014, in New Delhi. ASIATRIB is a significant tribological event that draws people from many countries in that part of the world, and STLE plans to be involved!

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