



DR. DAVID ROBERTSON

COMPLETES THE AIST 2010–2011 ELLIOTT LECTURE TOUR

Dr. David Robertson, professor emeritus at the Missouri University of Science and Technology, Rolla, Mo., USA, completed a tour of various universities with his 2010 Elliott Lecture, which was entitled, “Innovation in Metals Production — Faster, Cheaper, Safer.” The lecture gave examples of how basic scientific knowledge is gained and then used to meet the technical challenges and opportunities that arise as we strive to satisfy the ever-rising demand for metals in a world where sustainability is vital.

During his tour, Dr. Robertson visited the following universities:

29 September 2010	MICHIGAN TECHNOLOGICAL UNIVERSITY, <i>Houghton, Mich., USA</i>
8 October 2010	UNIVERSITY OF MICHIGAN, <i>Ann Arbor, Mich.</i>
11 October 2010	COLORADO SCHOOL OF MINES, <i>Golden, Colo., USA</i>
14 October 2010	SOUTH DAKOTA SCHOOL OF MINES, <i>Rapid City, S.D., USA</i>
19 October 2010	MONTANA TECH AT THE UNIVERSITY OF MONTANA, <i>Butte, Mont., USA</i>
21 October 2010	UNIVERSITY OF UTAH, <i>Salt Lake City, Utah, USA</i>
15 November 2010	CHONGQING UNIVERSITY, <i>Chongqing, PR China</i>
22 November 2010	UNIVERSITY OF SCIENCE AND TECHNOLOGY BEIJING (USTB), <i>Beijing, PR China</i>
7 February 2011	NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY, <i>Socorro, N.M., USA</i>
9 February 2011	UNIVERSITY OF TEXAS, EL PASO, <i>El Paso, Texas, USA</i>
1 September 2011	UNIVERSITY OF ALABAMA – TUSCALOOSA, <i>Tuscaloosa, Ala., USA</i>
TBA	PURDUE UNIVERSITY CALUMET, <i>Hammond, Ind., USA</i>

Liz Hunter, a student at the Colorado School of Mines (CSM), gave the following account of the lecture:

“As a junior at Colorado School of Mines majoring in metallurgy, I wasn’t really sure what to expect from the Elliot Lecture. I had heard from several professors that it was going to be a great lecture, so I decided to attend, but I went in thinking that I would just become lost and confused. Professor Robertson proved me wrong.

“I found his lecture to be very informative and easy to follow. His presentation was given in a way that people with a wide range of experience could get something out of it. I especially enjoyed his graphics regarding the reaction of molten iron and oxygen. He did a great job explaining all of his visuals before and during their presentation. I am so glad I attended the lecture and grateful that he came to the Colorado School of Mines to present it.”

Dr. Robertson said he has very much enjoyed the opportunity to visit so many universities’ departments of metallurgical engineering or materials science and engineering to deliver the Elliott Lecture. “Because I am based at a university west of the Mississippi,” he said, “I decided to visit mainly universities in the western United States.” His host at Michigan Tech was Dr. J.W. Drelich, and at the University of Michigan he was fortunate to meet Dr. R.D. Pehlke. Referring to his first six stops on the tour, Robertson said, “All these universities still have departments with ‘metallurgical engineering’ in



Background photo courtesy of Missouri S&T

their titles, so they are important sources of graduates for the steel industry.” New Mexico Tech and the University of Texas, El Paso also have departments of materials and metallurgical engineering.

The Colorado School of Mines is well known for its Advanced Steel Processing and Products Center, which is led by Professors John G. Speer and David K. Matlock; and the South Dakota School of Mines has a Nucor Chair, Dr. D. Medlin.

At the University of Utah, Dr. Robertson’s host was Professor Siva Guruswamy. He also met Professor H.Y. Sohn, who is working with AISI and the U.S. Department of Energy on innovative direct steelmaking process. While on a visit to China, Dr. Robertson gave the Elliott Lecture at Chongqing University and at the University of Science and Technology, Beijing.

Dr. Robertson reports that the lectures were well attended. Most of them were organized as a cooperative effort between the Material Advantage chapter at the school and the chapter’s faculty adviser. “I am extremely grateful to AIST,” said Robertson, “for the opportunity to visit so many universities and to renew and make new contacts that will be very valuable in the future.”

Dr. Robertson received the Elliott Lecturer Award at AISTech 2010 for his “application of process modeling to steel refining technology, and for advances in quantitative analysis of metallurgical processes.” He graduated with a B.S. degree from Imperial College, London, U.K., and obtained his Ph.D. from the University of New South Wales in Sydney, Australia, in 1968. He was the TMS Extractive Metallurgy Lecturer in 2008. He was the director of the national Mineral Technology Center for Pyrometallurgy (funded by the U.S. Bureau of Mines) from 1985 to 1996. Dr. Robertson’s teaching and research interests have covered the smelting and refining of all metals from aluminum through copper and steel to zinc. He and his colleagues have always worked closely with industry, both in the United States and internationally.

The AIST John F. Elliott Lectureship was established in 1990. This honorary lectureship is designed to acquaint students and engineers with the exciting opportunities in chemical process metallurgy; inspire them to pursue careers in this field; inform the public of the contributions of chemical process metallurgy and materials chemistry to the association; and honor the late Professor John Elliott of the Massachusetts Institute of Technology for his many accomplishments and the leadership that he provided during his career. The recipient presents a lecture at three or more universities throughout the year following selection. ♦

