A Big Ten Connection: PURDUE UNIVERSITY to PENNSTATE

Two former Boilermakers, now Nittany Lion professors, reflect on their bygone days in West Lafayette.

L. E. Hochreiter

Seungjin Kim

Between them, they have four engineering degrees from Purdue University, earned four decades apart. Both are experts in nuclear thermalhydraulics. L. E. Hochreiter (MSNE '67, PhD '71) took the industry route while Seungjin Kim (MSEE '92, PhD '99) pursued academia. Now they are faculty colleagues in the nuclear and mechanical engineering department at Penn State University.

They share a love of their years in West Lafayette and wear with zeal either black and gold or blue and white—depending on the occasion. From neighboring offices and common classrooms, they teach, mentor, and guide, imparting their knowledge of nuclear engineering and inspiring students. And both say they are glad to have a fellow Boilermaker in Happy Valley.

"It is great having another Purdue PhD on faculty. We complement one another in our research area, and he's doing an outstanding job," Hochreiter says of Kim.

Purdue is especially well known for its thermalhydraulics, Kim says, so both he and Hochreiter are highly regarded because of that link. "Dr. Hochreiter is a great mentor to me" he adds. "We share the same specialty, and we are planning to collaborate."

Kim joined Penn State this summer as an assistant professor of nuclear and mechanical engineering after four years as an assistant professor of nuclear engineering at the University of Missouri-Rolla. His passion for teaching grew at Purdue, where he was a teaching and research assistant, did a post-doctoral fellowship, and was a visiting assistant professor.

"The thing I like most is interacting with young minds ready to explore," Kim says. "I feel most content when I see students come into my office full of questions and confused faces and, after some explanation and discussion, leave with big smiles."

Hochreiter joined the Penn State faculty full-time in 1997 after teaching distance education courses part-time for Penn State for 10 years. He also taught part-time at Carnegie Mellon University. After Purdue he began a successful career at Westinghouse Nuclear Engineering Systems Division in Pittsburgh, working in nuclear safety and reactor core thermalhydraulics and advancing to Advisory Engineer and Consulting Engineer, which is the company's top technical position.

An early retirement option at Westinghouse and a faculty retirement at Penn State coincided, and Hochreiter was poised for the opportunity. "It's a lot of fun working with students," he says. "When I teach courses in reactor engineering, nuclear safety, and reactor thermalhydraulics, I have experience and can impart realism in class."

Kim also was in the right place at the right time as a graduate student working with Mamoru Ishii, the Zinn Distinguished Professor of Nuclear Engineering and a foremost authority in reactor thermalhydraulics, to help develop a groundbreaking model for two-phase flow transport employing interfacial area transport equation. "I was very fortunate to be part of it," Kim says.

Both professors can't say enough about the benefits of their Purdue experience. "Purdue shaped me as a person and a researcher. I was provided with an excellent education and research opportunities that I dare say no other universities can match," Kim says.

Hochreiter adds: "I can't tell you how thankful I am for the education I got at Purdue. I'm quite sure I would not be where I am today without having gone to Purdue. It opened up so many doors—it's amazing."

Kim, a Korean native, appreciated Purdue's diverse environment. "In our lab, we had students from many different coun-

tries—Argentina, China, France, India, Japan, Korea, Saudi Arabia, Turkey, and the United States. Interacting with people from different cultural backgrounds gave me opportunities to learn more about other cultures and improved me as a person," he says.

A native of Buffalo, New York, Hochreiter became focused on one particular student during his days at Purdue—his future wife, Susan Alice Novak (BA History '64, MA History '70). They met while traveling on the train from Indianapolis to West Lafayette after a holiday break. "We split a cab from the train station to the dorms then I asked her out," he says. "We just celebrated our 41st wedding anniversary."

Hochreiter remembers attending a Purdue alumni tailgate lunch in recent years prior to a Purdue-Penn State football game played on Joe Paterno's field. He and his wife wore black and gold sweaters and their two children, both Penn State alumni, were in blue and white. "Everybody looked at us strangely," he laughs.

Kim recalls cold games in Ross-Ade Stadium shaking key chains for the kick-off, and being in the stands for a buzzer-beating shot when Purdue beat Indiana University in basketball. "A big part of being a collegian is you cheer for your university," he says.

Even while the professors enjoy reminiscing, they are forward-thinking in their discipline. "We're seeing a bright future for students," Hochreiter says. "It's national news that there's a shortage of nuclear engineers and there are good job opportunities."

"It's a great time for those of us who educate nuclear engineers who will lead the nuclear engineering industry in the future," Kim says.

While 40 years apart on the Purdue alumni rolls, from offices right next door at Penn State, the philosophies and enthusiasm of Hochreiter and Kim couldn't be closer together. ■ **Amy Page Christiansen**

check it out

Yes, We Do Have Bananas (as seen on TV)

And they've got small amounts of radiation, say students from the American Nuclear Society.

Any time students declare themselves a nuclear engineering major, they're bound to become spokespeople for an often misunderstood industry. Late last September, during "Nuke Week," student representatives from the American Nuclear Society, primarily undergraduates, were given the task of educating fellow Boilermakers about the misconceptions of nuclear energy. And not just students were listening. *The Nightly Business Report* had their cameras rolling for a special on the future on nuclear energy. See it for yourself at the following link:
www.pbs.org/nbr/site/features/special/energy-options-nuclear_home/

The group handed out pamphlets offering nuclear energy facts in a question-and-answer format. They showed *The China Syndrome*, an Academy-Award-nominated movie from 1979 born out of the concept (though it's a scientific impossibility) that if an American nuclear plant had a meltdown, it could bleed through the Earth's core, ultimately affecting China. And students passed out bananas, which contain small amounts of radiation. Their point: radiation surrounds us on a daily basis, and when armed with the real facts behind the proper use of nuclear energy, Americans are more likely to come around to it. If nothing else, it's food for thought. ■ **W.M.**

Vincent Walter

Students participate in "Nuke Week" on campus, separating fact from fiction on the subject of nuclear energy.