

# Premier Graduate Programs Evolve

■ Phillip Ligrani, Ph.D., Oliver L. Parks Endowed Chair and Director of Graduate Programs, aims to “produce internationally competitive students sought after for their expertise.”

Parks College graduate studies launched at the start of the fall 2010 semester with 27 students. Phillip Ligrani, Ph.D. was appointed the Oliver L. Parks Endowed Chair and Director of Graduate Programs and is working to build enrollment and increase support. Ligrani comes to Saint Louis University from the University of Oxford. An investiture ceremony was held on September 16.

The goal of the graduate program is to “produce internationally competitive students sought after for their expertise,” says Ligrani. Graduate students collaborate with faculty on research in areas such as aviation safety, biomedical engineering, space systems, thermal-fluid sciences, sustainability and structural mechanics and design, the six major areas of research at the college. These efforts address global challenges of the 21st century.

Six research areas cross traditional disciplines, allowing students to work not only with engineering and aviation faculty, but also with faculty from business, medicine, psychology and chemistry. Together, diverse faculty and students bring multiple perspectives to solve challenging problems.

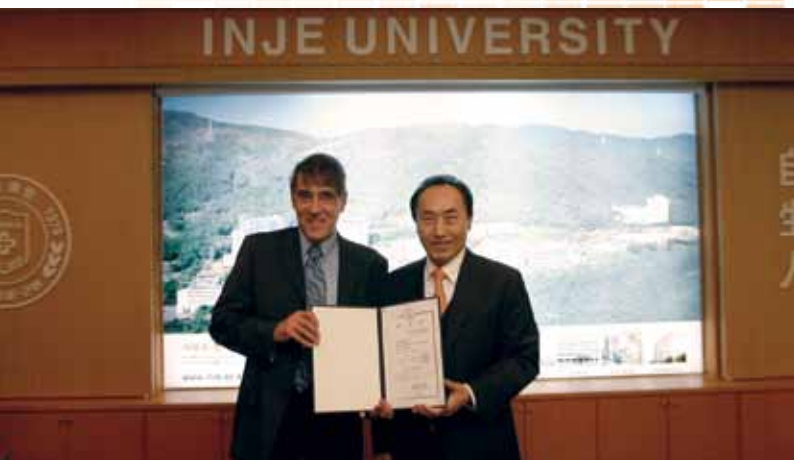
Prestigious graduate fellowship programs are offered and the college is “always looking for new avenues of support especially from industry and

private organizations to further expand our graduate programs and attract an exceptional class of students,” says Ligrani.

The programs are designed to be flexible to accommodate the varying interests of students. Some courses are taught by working professionals from area industries and organizations. Some courses may be offered in the evenings to facilitate working engineers to enroll in the program. Classroom lectures are supplemented by guest lectures, laboratory demonstrations and field trips as appropriate. Students are encouraged to publish their thesis/independent study work in appropriate professional conferences and journal publication.

The graduate programs accommodate both the working professional and the full-time student. Courses and research are tailored to the needs of the student. All paths of graduate study lead to more in-depth knowledge of their academic area of interest and can have a focus of the student’s choice within the six core areas of research.

Ligrani wants Parks graduate programs to be “nationally and internationally recognized for their excellence,” and is working to provide a stimulating environment for graduate study in both engineering and aviation.



## Phillip Ligrani, Ph.D.

Phillip Ligrani, Ph.D., is the Oliver L. Parks Endowed Chair and Director of Graduate Programs. Before coming to SLU, Ligrani was the Donald Schultz Professor of Turbomachinery in the Department of Engineering Science at the University of Oxford. From 2006 to 2009, he was the Director of Oxford University's Rolls-Royce University Technology Centre in Heat Transfer and Aerodynamics. From 1994 to 2006, he was a Professor of mechanical engineering, Director of the Convective Heat Transfer Laboratory and Associate Department Chair in the department of mechanical engineering at the University of Utah.

Dr. Ligrani's research interests include turbomachinery, convective heat transfer, fluid mechanics, micro-fluidics, fractionation and separation science, including SPLITT Fractionation.

Some of his recent academic recognitions include: Distinguished Editorial Review Board membership for Springer Publishing Corporation, NASA Space Act Tech Brief Award, the Carl E. and Jessie W. Menken Faculty Award for Excellence in Scientific Research and the "Professor of the Year" award at the University of Utah for outstanding classroom instruction.

In October 2010, Ligrani was honored with an appointment of Distinguished Advisory Professor at Inje University in Korea. The appointment is made to foster closer relations and academic exchanges between SLU and Inje University and to further provide arrangements to support research collaborations. The invitation to visit Inje University, which is located in Gimhae, near Pusan, came from Professor Dae Hee Lee of Inje University, a long-time collaborator with Ligrani. Inje University shares SLU's dedication to a holistic approach to education.

During his trip to China and Korea, Ligrani was also invited to visit Seoul National University, KARI (Korea Aerospace Research Institute), KAIST (Korea Advanced Institute of Science and Technology), and the Shanghai Jiao Tong University, located in Shanghai, China.

Ligrani was also involved in technical discussions in Korea with individuals from the Korea Maritime Institute, Kumoh National Institute of Technology, the Korea Institute of Geoscience and Mineral Resources, the Korea Nuclear Engineering and Technology Institute and Sogang University. These universities and institutes have strong engineering programs and conduct vital research in the field.

Phillip Ligrani, Ph.D. at the Investiture Ceremony; Ligrani with Interim Dean Krishnaswami Ravindra, Ph.D. and SLU Vice President - Frost Campus Manoj Patankar, Ph.D.; Receiving Distinguished Advisory Professor Appointment from Inje University; at Korean Aerospace Research Institute.