



# LEADERSHIP AWARD

Presented to

**Gretchen Kalonji**, Ph.D.

Kyocera Professor

Materials Science & Engineering Department

University of Washington

Seattle, WA, USA

**For Innovations and Leadership in  
Transforming International Engineering  
Education**

by

*International Advisory Board*

*International Network for Engineering Education and Research  
(iNEER)*

*International Steering Committee*

*International Conference on Engineering Education (ICEE-ISC)*

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**iNEER/ICEE-ISC Nomination**  
**May 7, 2003**

**Nominator:** Denice Denton, Dean  
College of Engineering, University of Washington  
Box 352180, Seattle, WA 98195-2180  
[denton@engr.washington.edu](mailto:denton@engr.washington.edu)  
Phone# (206) 543-0340

**Nominee:** Gretchen Kalonji, Kyocera Professor  
Materials Science & Engineering, University of  
Washington  
Box 352120, Seattle, WA 98195-2120  
[kalonji@u.washington.edu](mailto:kalonji@u.washington.edu)  
Phone# (206) 543-1115, (206) 685-3851

**Category of Award:** Leadership

*Summary of Accomplishments*

Prof. Gretchen Kalonji holds the Kyocera Chair in the Department of Materials Science and Engineering at the University of Washington. Previous to her tenure at the University of Washington, Dr. Kalonji served as Assistant and Associate Professor at MIT and held visiting faculty appointments to the University of Paris, Orsay, the Max Planck Institute, and the Institute for Theoretical Physics at UCSB.

While at MIT, Dr. Kalonji served as the Co-Director for the Computer Science and Electronics Program at the Solomon Mahlangu Freedom College, a school run by the African National Congress to serve the needs of the South African Exile Community. She has served as national Director for the NSF-Sponsored Engineering Coalition of Schools for Excellence in Education and Leadership (ECSEL). In addition to her appointments at UW, Prof. Kalonji currently holds a Distinguished Honorary Professorship at Sichuan University, in Chengdu, China, and a Visiting Professor appointment, at Tsinghua University, in Beijing.

*Major Leadership Roles*

- Director of *UW Worldwide* (2000 – present). *UW Worldwide* is a new effort at UW, focusing on the transformation of education and research through the creation of multinational faculty-student projects across the disciplines. We are prioritizing projects which 1) are firmly embedded in faculty research interests at participating institutions, 2) are incorporated in core curricula with the potential to involve large numbers of students, and 3) have the potential to address real community needs on all sides. To date, our *UW Worldwide* pilot projects have included a collaboration on first-year engineering design with Tohoku University (<http://courses.washington.edu/uwthohoku/>), a project on international contract law

with the University of Tokyo (<http://depts.washington.edu/global/uwtokyo/>), a collaboration with the University of Port Elizabeth, in South Africa, on Population, Development and Marine Affairs, and a collaboration with Chiba University on urban design. Our first full four-year binational curriculum, a program on “Scientific, Engineering and Social Challenges to the Environment in Washington State and Sichuan Province”, with Sichuan University (<http://depts.washington.edu/global/uwsichuan/>) has been in existence since Fall 2000, and features binational student research teams working in the areas of forest ecology, water resource management and waste water treatment, biodiversity, “eco-materials”, and environmental social sciences. The program, which incorporates undergraduate research, language and cultural studies, and a reciprocal one-year exchange, has been featured as a model for effective practice of internationalization of education by the US Department of Education, and has been designated as a “national key project” in higher education reform by the Chinese Ministry of Education. The *UW Worldwide* program is supported through the UW Tools for Transformation fund, the Fund for the Improvement of Post-secondary Education of the Department of Education, the NSF’s Partnerships for Innovation Program, and a grant from the Hewlett Foundation.

- Leadership in collaborations between the US and Japan on engineering education reform (1994 to present). Beginning with a binational conference on evaluation and assessment in engineering education which Prof. Kalonji organized with Prof. Itsuo Ohnaka of Osaka University in Semi-Ah-Moo, WA in 1994, there have been a series of workshops, conferences and collaborative programs with US and Japanese governmental, and industrial and academic partners. Among the outcomes of these collaborations was the creation of the UW-Tohoku University Collaborations on First-Year Engineering Design, which was initiated with Prof. Tetsuo Shoji. In the first project of its type worldwide, binational teams of freshmen students worked on research topics in faculty members’ labs, such as design of ceramic materials for fuel cells, MEMS and shape memory alloys. The success of our basic approach has resulted in a new building on the Tohoku campus dedicated to first year engineering collaborations. The Japanese government has also recently launched a new initiative to extend the UW-Tohoku approach to all of the former imperial universities in Japan.
- Chair of the UW’s International Faculty Council – IFC (1998-2002). The IFC was a campus-wide body charged by recently ex-President Richard McCormick to provide leadership for UW on educational, programmatic and research issues in the international arena (<http://depts.washington.edu/global/>). The basic mandate of the IFC was to create a plan for a new, university-wide, integrated approach to international education, research and service and to provide leadership and guidance in the implementation of that plan. All in all the IFC has brought together approximately 75 people to work on its associated projects, which have included 1) the International School Working Group, focusing on the partnership of the UW with the Seattle School District on internationalizing K-12 curriculum, the China Working group, from which the collaboration with Sichuan University was generated, and the WTO Working Group, which served as a coordinating body for the activities of UW

faculty and students associated with the WTO ministerial in Seattle. Under Prof. Kalonji's leadership, faculty and staff also played key roles in UW's projects with the Association of Pacific Rim Universities (APRU), such as the program for junior faculty from around the Pacific Rim on comparative water issues which we co-hosted last summer with Chulalongkorn University (<http://depts.washington.edu/global/apru/>).

Prof. Kalonji's work has been recognized by her peers. She is an AAAS Fellow and in Fall 2002 she received the NSF Distinguished Teaching Scholar Award for excellence in teaching and research. This award supports her new program, the Alliance for the Integration of Research, Education and Service (AIRES) which includes partners in the US, Canada, New Zealand, Japan, China, Namibia, Mozambique and Vietnam. Prof. Kalonji has dedicated her entire professional life to meaningful international collaborations and innovations in engineering education. She is richly deserving of this award.

Suggested Citation: For innovations and leadership in the transformation of international engineering education.

Prof. Kalonji will be able to attend the International Conference in Valencia to receive the award.

*Supporting Letters:*

**Lu Tiecheng**, President, Sichuan University, People's Republic of China

**Tetsuo Shoji**, Director and Professor, Fracture Research Institute, Tohoku University, Sendai, Japan