

Emerging Leader Award

Soh Khim Ong, Ph.D.

National University of Singapore

S.K. Ong, Ph.D., a recognized authority in the field of manufacturing engineering research, is associate professor in the department of mechanical engineering at the National University of Singapore. Her research interests include distributed manufacturing systems, life-cycle engineering, and virtual and augmented reality (AR). She heads a team of 14 researchers and graduate students and is developing AR-based manufacturing tools and assistive technology (AT) devices.

In addition, she is a prolific author and presents frequently at conferences worldwide. She has co-edited three books, published two highly regarded monographs, as well as 140 international refereed journal and conference articles. She is an assistant editor for the World Scientific book series on manufacturing systems and technology and is an invited reviewer for 23 manufacturing journals. She is a member of the executive scientific board for the *International Journal on Interactive Design and Manufacturing* and a member of the editorial advisory board of the *Journal of Systemics, Cybernetics and Informatics*.

Dr. S.K. Ong's research on life-cycle costing and environmental impact assessments in manufacturing has broad application for achieving eco-efficiency of products and processes. Since 2004, she has achieved significant breakthroughs in AR and interactive digital media research, which has applications in AT and manufacturing engineering. Together with her research team,



CITATION:

For demonstrated leadership in academia, groundbreaking research in manufacturing engineering, and for serving as a role model for other women engineers.

she has developed innovative and effective solutions, using AR technologies to simulate and optimize the manufacturing processes. Her research team has also developed AR-based virtual keyboards and AT devices that can enable physically disabled persons to perform daily tasks easily. This study received the Samsung DigitAll HOPE Award in November 2005, a first for the National University of Singapore. Her team filed for a patent on the AR Virtual Interface System.

Dr. S.K. Ong has received many international and national awards, and her achievements have broken new ground for Asian women engineers. In 2004, she was the first Asian woman to be selected M. Eugene Merchant Outstanding Young Manufacturing Engineer by the Society of Manufacturing Engineers. In 2005, she was the first Asian woman elected to associate membership of CIRP, the International Academy for Production Engineering, one of the most prestigious academies for manufacturing academics and researchers in the world.

She was appointed by Singapore President SR Nathan to serve as a Nominated Member of Parliament from January 2005 to April 2006.

Dr. S.K. Ong received her BEng (honors in mechanical engineering) and her Ph.D. in manufacturing from the National University of Singapore. In her leisure time, she enjoys traveling, jogging, and playing Scrabble® with friends and family. She also is interested in photography, particularly in capturing reflections.