

A brief report on the 2012 Kyoto Prize awarded to Ivan Sutherland

Akihiko Yamada, December 6, 2012

Dr. Ivan Sutherland has been awarded the 2012 Kyoto Prize in Advanced Technology from the field of Information Science. The Presentation Ceremony was held on November 10, 2012, at the Kyoto International Conference Center in downtown Kyoto. The Kyoto Prize is an international award presented annually since 1985 by the Inamori Foundation, founded by Kazuo Inamori, in three categories to honor those who have contributed significantly to the scientific, cultural and spiritual betterment of mankind.

Dr. Sutherland's citation is as follows:

2012 Kyoto Prize Laureate in Advanced Technology

Ivan Edward Sutherland

U.S.A. / May 16, 1938

Computer Scientist

Visiting Scientist, Portland State University

“Pioneering Achievements in the Development of Computer Graphics and Interactive Interfaces”

Dr. Sutherland has been responsible for many pioneering advances and fundamental contributions to the computer graphics technology used for information presentation, as well as the interactive interfaces that allow people to utilize computers without the need for programming.

For the category of Basic Science, Dr. Yoshinori Ohsumi was honored with the prize from the field of Life Sciences (Molecular Biology, Cell Biology, Neurobiology), and for Arts and Philosophy, Professor Gayatri Chakravorty Spivak was awarded from the field of Thought and Ethics.

Within each broad category, the prize rotates among subfields, e.g. the technology prize rotates across electronics, biotechnology, materials science and engineering, and information science. At the Ceremony, each laureate was presented with a diploma, a Kyoto Prize Medal (20Karat gold), and prize money of 50 million yen (about \$588,000) per category.

On November 11, Commemorative Lectures were given and on November 12 Commemorative Workshops were held. The theme of the workshop in Advanced Technology was “Extrapolating the future from the Origin of Computer Graphics and Virtual Reality Technologies”. Dr. Sutherland gave a talk, “Let Us Distinguish the Medium from the Message”. In contrast to the phrase “the medium is message” coined by Marshall McLuhan, Dr. Sutherland emphasized to distinguish the medium of computer graphics from its message. When he moved to the University of Utah in late 1960s, three-dimensional line drawings were available in computers

but with little message. Today's computer graphics carries valuable content and message centric use is popular. He told computer graphics is a tool and what's really new is that computers reveal invisible things. As his favorite example, he showed Computer Axial Tomography, which he mentioned as a magnificent medium to deliver a life-saving message. Two lectures, "Interactive Computer Graphics as Design Tools for the Rest of Us" by Takeo Igarashi of the University of Tokyo and "Medical Augmented Reality: From Early Concepts to First Deployments in Operating Rooms" by Nassir Navab of Technical University of Munich were also given. A panel discussion, "The Present That Dr. Sutherland Afforded Us and the Future That We Create Together," followed. The moderator was Michitake Hirose of the University of Tokyo. Dr. Sutherland and above lecturers joined it.

Dr. Sutherland also received ACM Turing Award for his pioneering and visionary contributions to computer graphics in 1988.

He joined Portland State University in 2009 as a visiting scientist. He and his wife Marly Roncken founded the university's Asynchronous Research Center and are leading the research in asynchronous systems.



Kyoto International Conference Center



Photo Gallery of Laureates



Sutherland and Roncken reading Annals