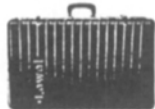


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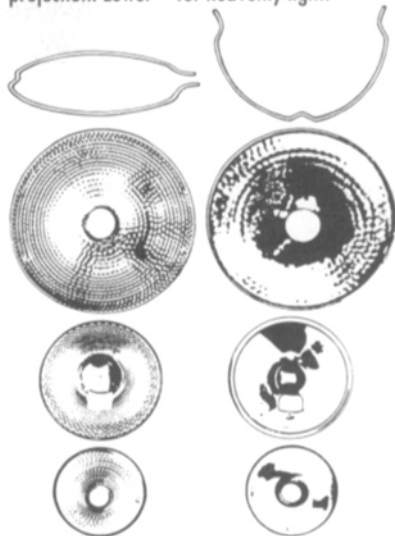


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Obituary

Kenjiro Takayanagi

Kenjiro Takayanagi was the last of the early pioneers in television. His death on July 23, 1990, at the age of 91, was a sad event for scientists in that field, for it marks the end of an era. Dr. Takayanagi, who was called "The Father of Japanese Television," will be remembered with an elite group of inventors which includes C. Francis Jenkins, John Logie Baird, Philo T. Farnsworth, Vladimir K. Zworykin, and Sir Isaac Schoenberg.

The milestones of his career correspond directly to the history of the Japanese television industry. He devoted himself to the full-time research and development of television in 1924 at Hamamatsu Technical College, where he was an assistant professor. In 1926, he succeeded in transmitting and displaying a Japanese character using a Nipkow disk for pick-up and a Braun cathode ray tube (CRT) for display. He completed the first all-electronic television in 1935 by combining the technology of the Iconoscope and CRT.

He joined Victor Company of Japan as Board Director and Chief Engineer in 1950. Dr. Takayanagi was promoted to Executive Vice-President of Victor Company in 1970, and was named Supreme Advisor of the company in 1973.

He invented the world's first two-head videotape recorder (VTR) in 1959. This patented invention became one of the basic ideas for the consumer VTR. Since its first practical demonstration by the Ampex Corporation in 1956, the videotape recorder has evolved into one of the most widely used products for broadcasting, industry, and home use.

Dr. Takayanagi was honored many times for his technical accomplishments. The Emperor of Japan presented him with five awards: The Medal with Purple Ribbon (1955); The Order of Sacred Treasure, Gold Rays with Neck Ribbon (1969); The Order of Sacred Treasure, Gold and Silver Star (1974); The Order of Culture (1981); and The Grand Cordon of the Order of the Sacred Treasure (1989).

In 1961 Dr. Takayanagi received an Official Commendation by the International Telecommunications Union, and in 1987 he was named a Distinguished Honorary Professor of the University of Alabama. He was granted Honorary Membership in the Society of Motion Picture and Television Engineers in 1988. This is the highest grade of membership and the greatest distinction that can be conferred by the SMPTE; this honor has been granted to just 61 people in the Society's 74-year history.



Kenjiro Takayanagi

He was the Chairman and an Honorable Member of the Motion Picture and Television Engineering Society of Japan and was on the board of directors of the Radio Engineering and Electronic Association. He was also a member of the Electronic Industry Association of Japan, the Radio Council of Japan's Ministry of Posts and Telecommunications, the Broadcast Council of the NHK, and the Technical Council of Japan's Ministry of International Trade and Industry.

Dr. Takayanagi, himself, provided some insight into his career and the thought processes behind his inventions when he was presented with Honorary Membership in the SMPTE. He said, "I am honored to be the first Japanese to join the ranks of Mr. Thomas Edison and Dr. Vladimir Zworykin, whose contributions I have respected for many years. . . . It was Mr. Edison who inspired me as early as 1924 that mechanical television had its limits and television must employ an electronic system to be complete. Because I admired him so much I put his portrait on the wall in my room and looked at him every day.

"I was always thinking of the way to study television at that time. One day I realized his photograph was made up of a countless number of dots. I counted, and there were about one million dots making up his portrait. Even coarse photography is made of 300,000 to 400,000 dots. Every one of these dots must be transmitted in order. High-speed transmission was required to avoid flickers with the afterimage in human eyes. I felt that the mechanical method could not possibly realize it. So I decided to study electronic television. I

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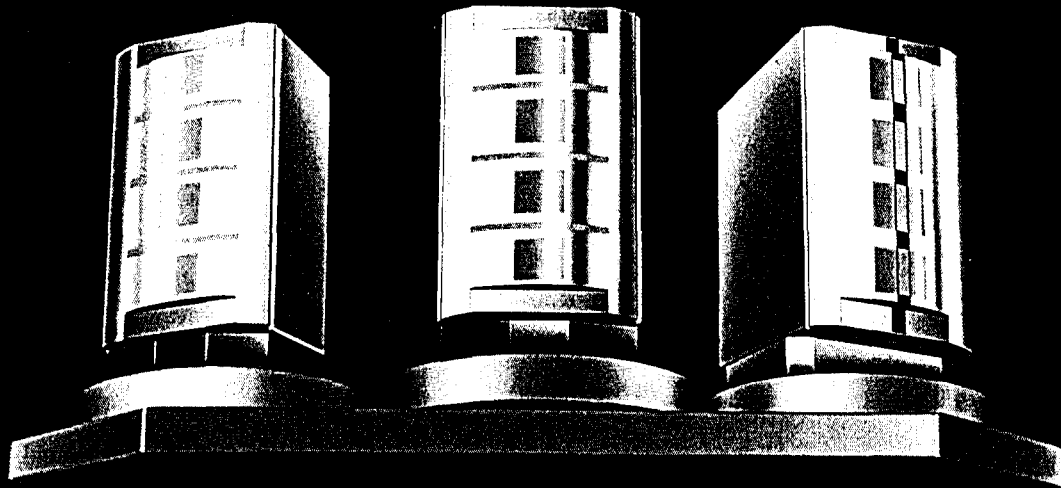
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am very thankful to Mr. Edison who gave me the clue to the electronic television of today.”

In 1934, Dr. Takayanagi made his first visit to the United States, where he met Dr. Zworykin at the RCA Research Laboratories. The similarities in their research toward an all-electronic television system were amazing. They became instant friends during this first visit. Dr. Takayanagi also met Philo Farnsworth on this same trip.

When he was inducted into the SMPTE as an Honorary Member, Dr. Takayanagi also spoke about the importance of teamwork in research. “After I started my study on television, I met many cooperative people. The most notable thing is that His Majesty the Emperor of Japan visited us in Hamamatsu to see the demonstration of our television unit. After the visit of His Majesty, what can be called a ‘project team’ today was formed to further study television. At that time such a large-scale team was only possible for military purposes.

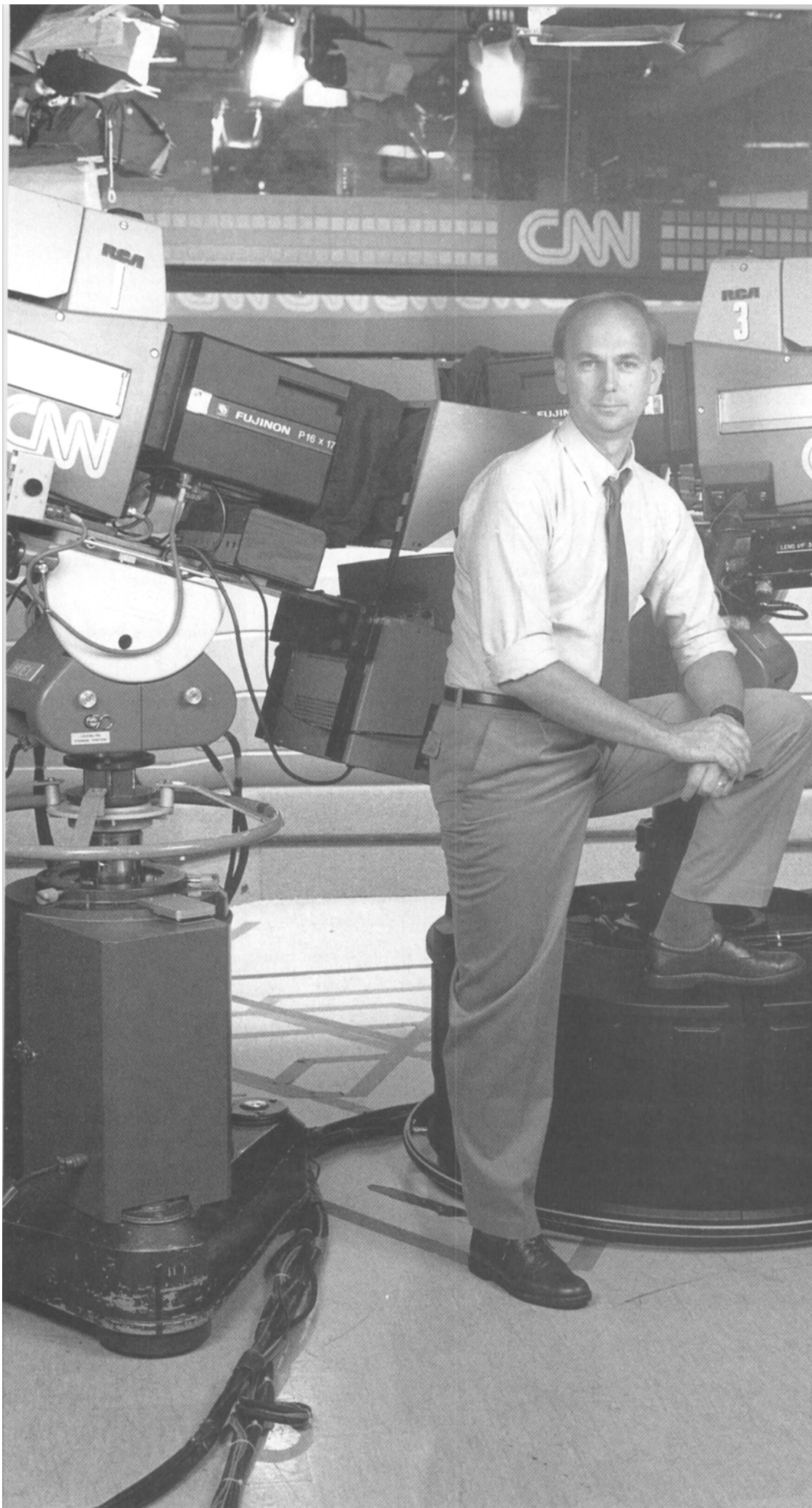
“No matter how splendid the idea is, it is difficult to succeed without supporters. Even if there is no genius like Edison, you can get better results by forming a good project team, inviting new ideas, and sharing research work. I call this project-team type of study artificial Edison.”

Dr. Takayanagi demonstrated his total commitment to the study of television with his own research and with grants and subsidies to the research and study of electronic science and television. In 1984, he founded the Takayanagi Foundation for Electronic Science and Technology, which he endowed generously with private funds. The aim of the Foundation is to promote science and technology in Japan. He knew full well the importance of support for research. He said, “Speaking from my experience, researchers are always in need of money in the early stage because no one has yet recognized the importance of their studies. The more creative the study is, the more the researcher needs money. I decided to support these young researchers financially.” He also contributed generously to the Institute of Television Engineers of Japan and the Foundation of Science-Broadcast-Programs.

In that same speech before the Society of Motion Picture and Television Engineers in 1988, Dr. Takayanagi said, “I am going to dedicate the rest of my life to the study of color perception. No one knows how it will turn out. But I intend to continue the study for as long as I live.”

On behalf of the Board of Governors, the Officers, the members of the Society, and his many friends in the motion-picture and television industry, we express our deepest sympathy to his family. The world has indeed lost one of the true pioneers of television.

*Maurice L. French
SMPTE President*



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