Executive Comments

Dr. Tadahiro Sekimoto, Chairman of the Institute for International Socio-Economic Studies (IISE), who was formerly Chairman of NEC Corporation, was bestowed the highest Medal of Honor from IEEE. The Honors Ceremony was held in Kansas City, Mo. in the U. S. on June 19. The citation for the award is the "pioneering contributions to digital satellite communications, promotion of information technology R&D, and corporate leadership in computers and communications." The medal is comparable to a Nobel Prize in the information communications field. Dr. Sekimoto was also the first chairman of the AIAA Japan Forum.

Dr. Tadahiro Sekimoto, Chairman of IISE, is being congratulated as the recipient of the IEEE Medal of Honor.

I was not necessarily confident of my intellect. I went to an elementary school every day as a matter of course. I was not so strong physically and absented myself from school on not a few occasions. I just believed that it was my duty to attend school regularly. I felt more aptitude in mathematics and science than in Japanese. I don't have a clear memory about what happened 70 years ago. Playing baseball was almost my hobby and I eagerly exercised and played the game since I was a second grader in the elementary school. It was not my talent but the interest which my friends shared in the sports that motivated me to play the game. I did not study so hard after coming home.

I grew up in a merchant's family, namely a restaurant. Because of this family background, my father influenced me to apply for a junior high school of commerce. As an elementary school pupil, I did not have any opposition to my father's intention. Elementary school boys in those days jokingly expressed their ambitious dream to "Be a minister or a general in the future." They were generally not so serious about designing details of their future life courses.

At the time when I was taking an entrance examination to enter a junior high school in 1939, the minister of education was General Araki. This military leader was of opinion that those who were physically weak could not be regarded as good people. Being physically weak, among other reasons, I failed flatly in the entrance exam to a prefectural school of commerce. Consequently, I applied for the second choice, and entered Takigawa Junior High School renowned for having a strong baseball team. I think that this experience marked the first turning point in my life.

Since it was an ordinary junior high school, I could study different subjects extensively, without being squeezed into limited subjects. Test scores indicated that I was already better at science and arithmetic than Japanese and Chinese classics. Consequently, my father and other people felt it natural that I pursue a future course in "science" when I advance to a senior high school. Along the way, however, there were various ups and downs. According to the educational practices in those days, I could obtain eligibility to apply for a senor high school after completing the fourth year of the junior high school. Fortunately, I passed the entrance exam to enter Himeji High School.

When I graduated from the high school, I was No. 1 among the 200 plus students who had majored in the A-section of science course. Under the guidance of a counselor, I successfully entered the physics section of the Science Department of the Tokyo Imperial University. This marked the second turning point of my life. About 80 percent of the students, including myself, who enrolled in the physics section of the science department, aspired to study theoretical physics. We all wished to produce qualifying papers and eventually win a Nobel Prize. However, it was not so easy to stay on course in the study of theoretical physics. As time went by, about 80 percent of students realized the deficiency in their aptitude for theoretical physics, and switched their course to so-called experimental physics.

I was among such students and newly took up the research of "materials for vacuum tubes." The third turning point in my life emerged in February 1958. NEC decided to hire 20 new employees in view of its future growth, when other companies were discharging many workers in the postwar difficult years. Naturally, competition was severe and it seemed that many excellent students applied for NEC. During the entrance exam interview, I was asked, "Why do you want to work in the material research area?" I was not prepared to give a right answer because I had not considered my life course so seriously in my daily life. However, I was feeling a heavy pressure inside me to succeed in the entrance exam by all means. This pressed state of mind worked out an instantaneous power and I answered, "It's because I believe that those who control materials will control technology." More than 50 years have passed since then. The progress in hardware technology has been marvelous. I think that the statement I uttered in the pressed situation was a maxim of universal nature.

The world will not treat you as you wish. Although I uttered a maxim-like statement, I was not provided with any opportunity to do material research. Little did I dream in those days that researches assigned from my boss, along with my self-initiated study of cybernetics theory and information theory, would later result in the research and application of digital communication, as well as the R&D of advanced digital satellite communications, which were cited for my qualification to receive the IEEE Medal of Honor. The digitalization of communication systems and the development of digital computers, empowered by the progress in integrated circuits (IC's), strongly pressed forward the gate into the arena of the integration of computers and communications, or "C&C." This realized the world of the Internet.

Thanks to digital technology, communication signals can be transmitted from any corner either in the space or under the sea, to be linked up with optical fiber networks that cover the entire surface of the globe. The ubiquitous presence of digital signals,

along with enormous development of information processing technology, characterize the current era. Thus, C&C systems have enabled the emergence of artificial assistants. I wonder if the fantasy which the genius Reeves had dreamed of in 1937 – '38 was finally realized by the emergence of the current era. I am more than happy to know that I have been given jobs of such epoch-making nature, out of chance and necessity.