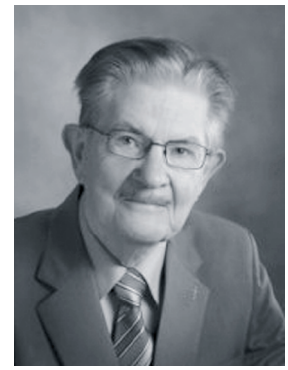
Martti Tiuri

* 13/11/1925 † 25/3/2016



MARTTI TIURI, professor emeritus of radio engineering at Helsinki University of Technology in 1962–1989 and a member of parliament for the National Coalition Party in 1983–2003, passed away on 25th March 2016. He was born in Koski on 13th November 1925. He had an unusually extensive career as a teacher, researcher and politician and was renowned as a visionary and innovator. As professor of radio engineering he played a part in creating the technology and competence we utilize nowadays in the information society. He was involved in launching television in Finland and made notable contributions in many areas of radio science and engineering, including radio astronomy, remote sensing, research and development in connection with antennas and the microwave sensors required in industrial automation. As a politician, he created visions of the future and spoke in favour of environmental issues as well as the needs of the information society.

Martti Tiuri studied electrical engineering at Helsinki University of Technology and graduated as a Master of Science (Technology) in 1950. He pursued further studies both in Helsinki and at Stanford University in Silicon Valley, California (as an ASLA scholar). He graduated with a Licentiate of Science (Technology) in 1958 and gained his doctorate in 1960 with a thesis on the trails left by the first satellites in the ionosphere: *Investigations of radio reflections from satellite produced ion trails using 100 Mc CW radar*. Tiuri was Finland's third doctor in the field of radio engineering and the first in space research.

Throughout his graduate studies Tiuri was working as a research engineer in the Radio Laboratory of the Technical Research Centre of Finland. Radio engineering also played a special role in his recreational activities, and he was among the leading forces behind Finland's first public television broadcast, achieved by the television club of the Society of Radio Engineers in May 1955. He also acted as the club's secretary and, as a research assistant in radio engineering, supervised the construction of the transmitter and was responsible for designing and adjusting the first transmit antenna.

Martti Tiuri was appointed professor of radio engineering at Helsinki University of Technology in 1962, having already gained practice in working as a professor during a year-long visit to Ohio State University in 1961–1962. It was also during this visit that he authored Chapter 7 "Radio-tele-

scope receivers" for the famous textbook *Radio Astronomy* published by Professor John D. Kraus in 1964. This book and chapter are still being cited in scientific papers even today.

Tiuri was one of the first five people to be appointed as research professors with the Academy of Finland, serving in this position in 1970–1975. It was during this time that the Metsähovi millimetre-wave radio telescope, known as the "Great Pumpkin", was built for space research. Tiuri was an efficient teacher: 15 Doctors of Science (Technology), 31 Licentiates of Science (Technology) and 180 Masters of Science (Technology) graduated during his term of office as professor, and a large number of his students also completed doctorates elsewhere – many of them abroad. Around twenty of his students have been appointed to professorships.

Perhaps the most significant feature of Tiuri's period as a professor, particularly early on, was his untiring demand for the establishing of professorships in electronics and communications engineering. This was indeed successful in Helsinki, enabling Finland to achieve a prominent position as a trailblazer in the current era of information technology. Tiuri served actively as a professor until 1983, when he was first elected to the Finnish Parliament. Although he retired as professor of radio engineering in 1989, many companies retained him in their management bodies as an expert in technology and as a visionary. He also acted on the board of a foundation awarding grants to encourage doctoral students to enter the field of communications technology until his death, even acting as chairman of that board until the spring of 2015.

Tiuri gained international recognition as a researcher, e.g. in 1986, when he was the first Finn to be elected as a Fellow of the Institute of Electrical and Electronics Engineers (IEEE). The International Academy of Astronautics also accepted him as a member, and in Finland he was an honorary member of the Academic Engineers and Architects in Finland, and a member of the Finnish Academy of Science and Letters from 1973 onwards.

Martti Tiuri was particularly known for his ability to look into the future, both as a professor of radio engineering and as a member of parliament. In the latter context his interest in the future produced many books: *The Future begins now* (1984), *Finland on the way to the future* (1986), *Possibilities for the Earth* (1990) and *The future will be different* (1999) and *Road to a sustainable future* (2011). Most especially, he had a crucial impact on the establishment by the Finnish Parliament of a Committee for the Future, and he also chaired that committee. His straightforward visions of the arrival of the information society were often misinterpreted in the 1980s, and he was greatly feared outside the Helsinki region as it was believed that 'tiurism' would lead to the depopulation of most of the rest of Finland. The solution that he always recommended for securing the sustainable development of Finland's energy supplies, was to build more nuclear plants, and he made constant reference to the acid rain brought on by the use of fossil fuels, to fine particles and to the greenhouse effect when discussing this topic in Parliament and with the press in Finland, as also in the Council of Europe and meetings of its committee for science and technology.

Obituary by
Antti Räisänen