

Ronald Aarts was born in 1956, in Amsterdam, the Netherlands. He received a BSc degree in electrical engineering in 1977, and a PhD in physics from Delft University of Technology in 1995. He joined the Optics group at Philips Research Laboratories, Eindhoven, in 1977 and initially investigated servos and signal processing for use in both Video Long Play players and Compact Disc players. In 1984 he joined the Acoustics group at Philips Research Labs and worked on the development of CAD tools and signal processing for loudspeaker systems. In 1994 he became a member of the Digital Signal Processing (DSP) group at Philips Research and has led research projects on the improvement of sound reproduction, by exploiting DSP and psycho-acoustical phenomena.

In 2003 he became a Philips Fellow at Philips Research, and extended his interests in engineering to medicine and biology in particular sensors, signal processing, and systems for ambulatory and unobtrusive-monitoring, sleep, cardiology, perinatal, drugs response monitoring (DRM), and epilepsy-detection.

He has published over 450 papers and reports, and holds over 250 first patent application filings including over 170 US-patent applications and over 110 granted US-patents in the afore mentioned fields. Philips presented him the Gilles Holst Award (1999), the Gold (2012) and Diamond (2018) Invention Awards, and the Eureka Award (2001 and 2014). He has served on a number of organizing committees and as chairman for various international conventions. He is an IEEE Fellow (2007) and winner of the IEEE Chester Sall Award (2017); an AES (Audio Engineering Society) Silver Medal recipient (2010), Fellow (1998), and past-governor.

Ronald is part-time full-professor at the Eindhoven University of Technology (TU/e) since 2006, mainly supervising Master and PhD students; and president of Aarts Consultancy (Adviesbureau Aarts), since 1990. In 2019 Ronald retired from Philips, focussing now on his academic and consultancy work, the latter on engineering and intellectual property (IP) issues.

Specialties: Digital Signal Processing for Acoustics, Audio, and Medicine