

Short CV of Prof. Dr.h.c. Prof.h.c. Hannu Tenhunen

Personal Facts:

Name: Hannu Tenhunen. Born: in Joroinen, Finland, 16.4.1957. Nationality. Finland and Sweden, permanent resident P.R. China; Gender: Male

Address: Tuurintie 1 C 24, 20100 Turku, Finland. Email: hatenhu@utu.fi, hannu@kth.se

Academic Qualification:

M.Sc. in Electrical Engineering 1982, Helsinki University of Technology (now Aalto University), Finland, Ph.D. Cornell University, Ithaca, NY, USA, 1985, Docent (habilitation) at Tampere University of Technology 1993, 1998 Helsinki University of Technology, 2001 University of Turku. Associate professor 1988, Tampere University of Technology, Chair professor (fulmakt professor) 1992 at Royal Institute of Technology (KTH). Visiting professor, Cornell University, USA, Honorary Doctor (Dr.h.c.) Tallinn Technical University, Estonia, Honorary and advisory professor, Fudan University, Shanghai, and Beijing Jiatong University, China, Adjunct professor, Chinese University of Hong Kong, Professeur Invite', Institut National Polytechnique de Grenoble, France. Invited professor, University of Turku, Finland. Research Fellow at TUCS/Åbo Akademi, and Nokia

Fellow. Distinguished short term lecturing professor, Fudan University, Shanghai 2019-2023, Ministry of Education of P.R. China, foreign experts program



Research Career:

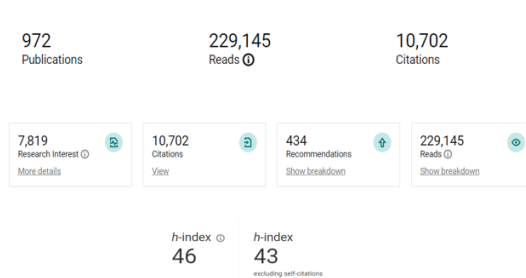
From September 1985 he started at Tampere University of Technology, Applied Electronics and later at Signal Processing Laboratory as an **associate professor** with duties in setting up the LSI and VLSI design activities and to integrate DSP and VLSI activities together. He was also the **coordinator (program director) of National Microelectronics Program of Finland** during 1987-91, a 120 MFIM national research investment. He also worked as **Head of Laboratory** of Signal Processing Laboratory, which had over 70 researchers. From November 1989 he worked as **research professor on ASIC design** methodologies and applications with. This chair was financed by industry. Since January 1992 he has been with Royal Institute of Technology (KTH), Stockholm, where he is a **chair professor of electronic system design** and head of Electronic Systems. During 2001-2005 he was **Dean** of School of Information Technology at KTH. In 2006-2010 he was invited professor of nanoelectronics at University of Turku, Finland and the director of interuniversity research and education center Turku Centre of Computer Science (www.tucs.fi). TUCS represent a new interdisciplinary research cooperation form between three different universities (including business school) and local governance between various local actors in innovation triangle. He was also the director of TUCS doctoral school with over 110 Ph.D. students. During 2009-2012 he was **European Director of Education** for EIT Digital, European Institute of Innovation and Technology, Knowledge and Innovation Community Digital (<https://www.eitdigital.eu/>), the major European flagship project for the integration of the knowledge triangle across research, education, and innovation. Currently he is invited professor at University of Turku with focus on smart embedded systems and electronics.

Teaching Experience

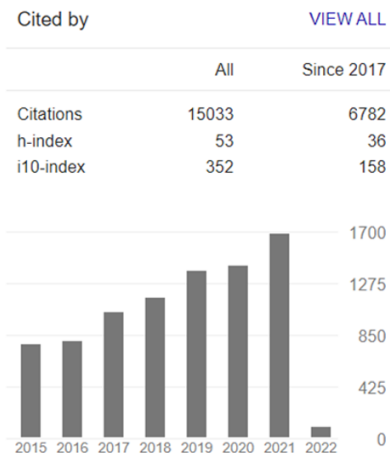
He has lectured courses from semiconductor physics to computer engineering and designed and/or lectured over **50 different courses** during the last 30 years. He has contributed significantly in **restructuring the educational programs** in electronics both in Tampere University of Technology in mid 80s and at KTH in 1990s. He has contributed to **internationalization of advanced education programs** via establishment of International Signal Processing Program in Tampere in late 80s and NorFA Nordic Program on Modern Electronic System Design, NorESD in 1993. So far, the NorESD program with over 30 courses and close to 500 participants has been the largest single coordinated activity towards continuing education for industry in this area. In 2000s, these activities have resulted to establishment of the popular **international Master Program** on System-on-Chip Design at KTH. After transforming this to more embedded system direction, the program is the leading and most successful in Europe in SoC and embedded system area. Prof. Tenhunen was one of the key architects in late 1990s for the current KTH large-scale initiative in Kista within information technology and he was the first **dean of School of Information Technology (IT-Universitet)** responsible on faculty and educational program development for the new IT-University (<http://www.ict.kth.se/>) located in Kista. Under his leadership KTH's IT-University is the largest School at KTH and has a significant European role in terms of profile, approach and strategy for new curriculum and faculty integration. He was director of ICT related joint doctoral school between University of Turku, Åbo Akademi, and Turku School of Economics. He is one of the original architects and director of education for the European Institute of Innovation and Technology proposal EIT Digital, integrating education, research, and innovation together in a new scale for Europe targeting 300-350 MEuro activity base per year before 2019. Currently he is engaged to drive education more on project based learning and student centric processes and enhancing strategic co-operation between universities in this area in Europe, Africa and China, especially at University of Turku. He has produced over 50 PhD degrees and over 28 of his former PhD students or post-docs have reached professor/associate professor level in academia in Nordic countries, Europe, Africa, and Asia. Currently he is engaged in forming a new engineering education program with focus on digital factories, smart robotics, and autonomous systems; and actively promoting Challenge Driven Education paradigm as next framework for engineering education targeting societal impact.

Publications

His current research interests are in embedded electronics, especially in smart systems and electronics. He has made **over 950 reviewed publications (378 journals, 538 conference, and 37 book chapters) worldwide** and **over 175 non-reviewed national publications/presentations** since 1983. These include multiple publications and presentations on research and education policies, high-technology impact to business and R&D processes, and on innovation system, many of those being invited or keynote presentations. He has **9 patents** granted worldwide. He is actively contributing to multiple international conferences as general chairman, session chairman, technical program committee member, invited speaker, panel organizer and panel member, and just presenting papers. He is e.g. technical program committee member of International Solid State Circuit Conference (ISSCC) (from 1989 to 2007), **general chairman** of European Solid-State Circuits Conference in 2000, member of Steering Board of ESSCIRC/ESSDERC from 2006 forward, and a long standing (s1991-2005) chairman of the successful IEEE NORCHIP series of Nordic conferences for the circuit design community, vice-chairman of Multiprocessor SoC workshop (MPSOC) in 2004-2010. He was the general chairman for ESSCIRC/ESSDERC conference in 2011 in Helsinki, the first ever ESSCIRC/ESSDERC in Finland. He was the chairman of ESSCIRC 2000 in Stockholm. For research see https://www.researchgate.net/profile/Hannu_Tenhunen, with H index 46 and 10700 citations. And see Google Scholar profile <http://scholar.google.se/citations?user=yD591D4AAAAJ&hl=en> with around 15 000 citations and H-index 53, where half of the citations is accumulated over the last 5 year period (since 2017).



[Research gate](#)



[Google scholar](#)

Awards

Lifetime Member of Academy of Technical Sciences, Finland, 2009 forward
 Honorary doctor, Tallinn Technical University, Estonia,
 Honorary professor, Beijing Jiatong University, Beijing, China
 Honorary professor, Fudan University, Shanghai, China
 Adjunct professor, Chinese University of Hong Kong, Hong Kong
 Professour Invite, Institut National Polytechnique de Grenoble INPG), France
 Nordisk Forskarakademi visiting professor (3-year period)
 Nokia Fellow, 2005-2006
 Fulbright fellow at Cornell University 1983-1985
 Senior Individual Research Grant holder, Stiftelse för Strategisk Forskning, 2005
 Prestigious Shanghai Mangolian Silver Award and Medal from City of Shanghai in 2014 for the contributions to develop Shanghai
 Distinguished short term lecturing professor, Fudan University, Shanghai 2019-2023, Ministry of Education P.R. China, foreign experts program
 Multiple best paper awards and best course awards

Tutoring experience

Number of PhD's graduated

- 53 PhD graduates
- 14 professors tutored from post-docs in my laboratory
- From my PhD students 15 have reached professor/associate professor status

Positions of trust in education:

- Director of Education, European Institute of Innovation and Technology, EIT Digital, 2009-2013
- Director of TUCS Graduate School, 2006-2010 (110 PhD students)
- Dean, School of Information Technology, Royal Institute of Technology (KTH), 2001-2005
- Director or co-director of SSF national doctoral schools in Sweden
- Designed multiple international master programs since 1980s, initiated 4 master programs in China (2 at Fudan University, Zhejiang University, and University of Electronic Science and Technology of China, Chengdu)
- Initiated a new master and doctoral programs at University of Dar Es Salaam, Tanzania based on Challenge Driven Education model
- Key initiator for development of engineering education at University of Turku based on CDIO model and to current expansion in autonomous systems and digital factory concepts.