

Full name and date

- * Hæggström, Edward Olof
- * Male
- * Date of writing the CV: 12.09.2014

Date and place of birth, nationality, current residence

- * January 22, 1969, Helsinki, Finland
- * Finnish
- * Helsinki, (Gustaf Hällströminkatu 2, PB. 64)

Education and degrees awarded

- * MBA, Helsinki University of Technology, Innovation management, 2001
- * Ph. D. – Physics, University of Helsinki, 1998
- * M. Sc. – Physics, University of Helsinki, 1995
- * Docent in Physics, University of Helsinki, 2000-

Other education and training, qualifications and skills

- * Reserve officers' school 1990

Linguistic skills

- * Mother tongue: Swedish
- * Other languages: Finnish (fluent), English (fluent), French (working knowledge), German (working knowledge)

Current position

- * Professor in Physics (Electronics), University of Helsinki, 2008 –

Previous work experience

- *Visiting Professor, Harvard Medical School, 2008- (part time)
- *Tenured University Lecturer, University of Helsinki, 2006 – 2008
- *University Lecturer, University of Helsinki, 2002 – 2006
- *Project Leader, CERN, Geneva, 2004 – 2005
- *Visiting Scholar, Stanford University, 2002 – 2003
- *Senior Assistant, University of Helsinki, 2000 – 2001

No conflicts of interest relevant to the application.

Research funding, leadership and supervision

Major research funding: ~8 M€ since 2003

Extent of the research appropriation (academic group grants, personal academic grants and industrial research contracts >50 k€ either as PI, coPI, or supervisor)

- *European Union (750 k€)
- *Academy of Finland: (2750 k€)
- *University of Helsinki: (450 k€)
- *Tekes (Finnish Funding Agency for Technology and Innovation): (3050 k€)
- *Private Foundations: (50 k€)
- *Industrial Grants: (450 k€)

Leadership in research work: PI and co-PI in ca 50 academic and industrial projects (both national and international)

6 completed PhD theses, 7 Licentiate theses, 30+ M. Sc. theses since, and 6 B.Sc. theses 1999.

Examiner or opponent of 30+ M.Sc, 6 Lic.Phil, and 4 PhD theses in Finland, Sweden, Norway, Germany, and the US since 2000.

Supervision of 7 post-doc (6 primary and 1 secondary supervisor role)

Officially appointed supervisor to 10 undergraduate (currently) and 13 post-graduate/doctoral (currently) students

Merits in teaching and pedagogical competence

*Pedagogical training and competence: Reserve officers' school, thought physics since 1995 (University and preparation school for medicine). Thought boy scouts in various disciplines for ten years 1981-1991.

*Chairman of the committee that evaluates teaching skills among candidates for tenure and docentship (faculty level), 2014- 2015

*Planned and implemented Ultrasonics class (64 h lectures, 28 h demonstrations, graduate level), Digital Electronics class (64 h lectures, 28 h demonstrations, graduate level), Measurement techniques class (32 h lectures, 14 h demonstrations, undergraduate level), Analog Electronics class (32 h lectures, 14 h demonstrations, undergraduate level). Created together with four other faculty members a new class on continuum mechanics (32 h lectures, 14 h demonstrations, undergraduate level).

*Development of teaching methods: developed and tried approaches for theoretical and practical training of physicists.

*Supervision of theses (see #8)

*Merits in the training of responsible conduct of research and innovation practices: within the framework of my lecturing and supervision of research I teach the foundations of responsible conduct of research and innovation (IRB protocols, patent disclosure filings).

*Teacher of the year in Physics Department in 2005 and 2012 as awarded by the physics student organization, Resonanssi ry.

Awards, prizes and honours

*IEEE UFFC best student poster award with Dr. Yongli Huang 2004

*Best Application of Virtual Instrumentation, Biotechnology/Life Sciences, National Instruments (NIweek) 2007

*Achievement Awards, NI Life Sciences, 2012

Other academic merits

*Service as a pre-examiner or as an opponent of a doctoral dissertation, as a member in dissertation committees (abroad): see #8

*Evaluation of academic/scientific competence: Evaluating candidate for faculty position at Univ. Cornell, USA, (2005); UCLA, Davis, (2005), USA; Univ. Michigan, USA, (2005). Aalto University, Espoo, Finland (2014, 2015)

*Memberships and positions of trust in scientific and scholarly societies: Member, technical Program committee of IEEE UFFC (2008 –)

*Membership in national and international expert groups, steering committees: Served on the steering group of several academic and industrial projects.

*Administrative responsibilities at higher education institutions: Group leader, Ultrasonics, UH (1998 –). Head of Electronics laboratory, Physics Department (2005 –)

*Referee for journals: Ultrasonics; IEEE trans UFFC; Measurement Science and Technology; Tissue Engineering; J. Nondestructive Evaluation; J. Sensors; Holtzforschung; J. Food Technology; J. Food Control; Acta Polytechnica Scandinavica

*Scientific and fiscal administration: 8 Academy of Finland, 2 University of Helsinki, 16 National Technology Foundation, 3 European Union, and 35+ Industrial research projects.

*Vice chair of the Helsinki University section of the Professors' Union

Scientific and societal impact of research

*Total number of publications: 350+, most cited one: 187 citations, one article in the Wall Street Journal (2012), Science Update (AAAS, 2007)

*10 most important publications for this application marked in LoP.

*Merits related to the application of research results: 3D Interferometric microscope developed for Åbo Akademi University, Ultrasound quality tester developed for OVAKO steel, optical eye tester developed for Icare inc.

*Invention disclosures, patents and other commercialization-related merits: see LoP, ProtoRhino inc, Photonon inc, Swan Cytologics inc, founded by students of mine, and Nanoform Finland inc founded by me.

*Merits in science communication and expert assignments in the media: interviews by e.g. Helsingin Sanomat, Huvudstadsbladet, Tekniikka ja talous, MTV, Yle