

CV for Ewert Bengtsson 2024

1. **Higher education qualifications:** MSc in Eng. Physics (Civ.ing. i teknisk fysik) from Uppsala University in 1974
2. **Doctoral degree:** PhD in Physics from Uppsala University, 1977. Thesis: On the Design of Systems for Computer Aided Analysis of Microscopic Images. Application to early detection of cervical cancer. Supervisor: Kai Siegbahn, (Nobel Laureate 1981) Assistant supervisors: Björn Stenkvist, Bengt Olsen
3. **Postdoctoral position:** Electrotechnical Laboratories, Tsukuba, Japan, 1983
4. **Qualifications required for appointment as a docent:** Docent in scientific computing, at Uppsala University, 1980.
5. **Current position:** Professor emeritus (retired professor) of Computerized image analysis at Uppsala university, since June 2015.
6. **Previous positions and periods of appointment**
 - a. Research assistant for image analysis of cervical smears 1973 - 1978.
 - b. Scientific director of the Image Analysis Lab. of Uppsala Univ. 1979 -1984.
 - c. Project leader for developing an automated screening microscope 1983 - 1984
 - d. Head of development at IMTEC - Image Technology AB 1984 - 1989.
 - e. Adjunct professor of digital image processing at Uppsala Univ. 1988-1996
 - f. Chairman of the board and consultant in image processing technology for Uppsala Bildbehandling AB, 1988-1999.
 - g. Director of the Centre for Image Analysis 1988-1990, 1992-1996, 2005-2010
 - h. Vice rektor/rektorsråd i.e. senior advisor to the vice chancellor of Uppsala University on Information Technology, 30% of full time 1998-2011
 - i. Full professor of Computerized image analysis at Uppsala Univ. 1996-2015
7. **Interruption in research.** Parental leave 3 months 1984.
8. **Supervision:**

People awarded doctorates with Bengtsson as main supervisor (26):

Dahlqvist Bengt, 1988, Nordin Bo, 1989, Orbert Curt, 1993, Pedersen Finn, 1994, Thurfjell Lennart, 1994, Wester (Johansson) Tomas, 1994, Choi Heung-Kook, 1996, Jarkrans Torsten, 1996, Nyström Ingela, 1997, Ranefall Petter, 1998, Frimmel Hans, 1999, Östlund Catherine, 1999, Lundqvist Roger, 2001, Lindblad Joakim, 2003, Ammenberg Petra, 2003, Hult Roger, 2003, Wählby Carolina 2003, Hast Anders, 2004, Wehrmann Felix, 2004, Muhammed Hamed Hamid, 2005, Razifar Pascha, 2005, Åhlen Julia, 2005, Karlsson Patrick, 2008, Gedda Magnus 2010, Niazi Khalid 2011, Malm Patrik 2014

With Bengtsson as assistant supervisor (16):

Vidholm Erik, 2008, Pinidiyaarachchi Amalka 2009, Allalou Amin 2011, Gavrilovic Milan 2011, Malmberg Filip 2011, Kårsnäs Andreas 2014, Azar Jimmy 2014, Olsson Pontus 2015, Linnér Elisabeth 2015, Ishaq Omer 2016, Liu Fei 2016, Wahlberg Fredrik 2017, Lidayová Kristina 2017, Sadanandan Kecheril Sajith 2017, Ram Kaylan 2019, Wilkinson Tomas 2019.

9. Publications

98 reviewed journal publications and 103 reviewed conference publications. 6018 citations (Google scholar), H-index 39, i10 index 102, i.e. 102 of the papers have been cited at least 10 times

10. Other information of relevance

Distinctions

- a. Dean of the Division of Mathematics and Computer Science of the Faculty of Science and Technology at Uppsala Univ. 1996 – 1998.
- b. Member of Royal Society of Sciences at Uppsala since 2000
- c. Member of the Swedish Royal Academy of Engineering Sciences, IVA since 2006
- d. Recipient of the Gustaf Adolf Gold Medal from Uppsala University 2013
- e. Fellow of IEEE (Institute of Electrical and Electronics Engineers) 2015

Invited plenary presentations

Invited presentations about medical image analysis, mainly microscopy to international conferences during the last decade in: Korea, Australia, India, China, Sri Lanka, Indonesia, Canada, France, USA, Norway.

Entrepreneurial achievements

I was the main technical researcher behind the development of a high performance computerized microscope with applications in automated cervical cancer screening and chromosome analysis. The project was run in an academic setting 1993-1983. Then a company, Imtec, was established and I served as Head of development 1983-1989. The development group consisted of up to 20 persons. A dedicated image analysis computer system and a workstation for computer assisted radiology were also developed.

Based on this development team a consulting company was formed with me as driving force. I was also active in the formation of two other companies active in applied medical image analysis Computer Wound Analysis Institute AB and Diascan AB. I have on several occasions been acting as an independent consultant to international companies in Sweden, UK and US.

After becoming retired from Uppsala University I was active in establishing a company Spearpoint Analytics AB which is developing an AI based system for prostate cancer grading. I am still working actively with that company.

I initiated numerous university wide reforms in the general IT field as vice-rector/rektorsråd for IT and head of the virtual IT-faculty.

I was the initiator, main applicant and head of the scientific reference group of the national research network VISIT, funded by SSF 1996-2001 with a total of 48 MSEK.

Committees:

I have been on the editorial boards of four international scientific journals

- a) CMPB, Computerized Methods and Programs in Biomedicine, Elsevier
- b) Machine Graphics and Vision, Polish Academy of science
- c) Journal of Multimedia Information System, Korea Multimedia Society
- d) Cytometry, Wiley

Associate editor for CMPB 2012-2015

PhD dissertations:

Opponent on 16 occasions in Sweden, Norway and Finland

Member of 26 PhD dissertation committees

Expert evaluator:

Has served as expert evaluator “sakkunnig” for about 21 lecturer and professor positions and around 14 docent appointments

Scientific funding committees for

NUTEK – National Board of Technical Development (Minimially Invasive Medical Techniques),

SSF –Swedish Foundation for Strategic Research (Medical information technology)

VR – Swedish Science Council (Medical Engineering, chairman for 3 years)

ERC – European Research Council (Advanced Researcher Grants)

ANR – French Research Council

Program committees for international conferences, for instance:

EUSIPCO 2007 - 15th European Signal Processing Conference

NORSIG 2004 and NORSIG 2006 – Nordic Signal processing Symposium

MDA 2006, MDA 2008 - Advances in Mass data Analysis of Images and signals in Medicine, Biotechnology, Chemistry and Food Industry

BIOIMAGING 2016, 3rd International Conference on Bioimaging, BIOSTEC 2016

ICPR 2006– International Conference on Pattern Recognition

Finance chair for ICPR 2014

Conference co-chair for the Workshop on Interaction in medical Image Analysis and Visualization at MICCAI 2007