

Curriculum Vitae Brevis [Feb. 2017]: Prof. Bengt Carlsson

Name:	Bengt Carlsson (male)	Born: June 10, 1958 Sweden
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Professional Preparation

1989 PhD. (Tekn.Dr.) in Automatic Control, Uppsala University (UU).

1987 Tekn. Lic. in Automatic Control, UU.

1984 MSc in Engineering Physics, UU.

Positions & Selected Appointments

2015 – Head of the Division of Systems and Control, UU

2010 – Director of VA-kluster Mälardalen

2005 – 2009 Head of Education, Department of Information Technology, UU

2004 – 2005 Head of the Division of Systems and Control, UU

2000 – Professor in Automatic Control at UU

1999 – 2002 Director of undergraduate studies at the Division of Systems and Control

1994 – 2000 Associate professor (docent) in Automatic Control at UU

1990 – 1994 Assistant professor (lektor) in Automatic Control at UU

1988 Visiting Research Associate, University of Newcastle, Australia

Selected Commissions of Trust

2013 – 2015 Board member of Urban Water

2012 – Elected member of IWA Sweden

2002 – 2014 Elected member of the board of Department of Information Technology, UU

2006 – 2014 Member of the Course Classification Group at Uppsala University

1994 – Board member of Systems and Control Group

1994 – 2003 Member of the Elector group at Uppsala University

Thesis Supervision

Currently I am the main supervisor for two PhD students (Oscar Samuelsson and Tatiana Chistiakova) and co-supervisor for five PhD students. I have previously been the main supervisor for eight graduated PhD students

During the last five years I have acted as the examiner (subject reader) for more than 30 Master theses work.

Selected Leadership and entrepreneurial achievements

- I am since 2010, the Director for a large research consortium ("VA-kluster Mälardalen"). The consortium cooperates within research and education in the area of wastewater treatment and is partly financed by The Swedish Water & Wastewater Association. The consortium consists of seven universities/research institutes and ten wastewater organizations, see further www.va-malardalen.se
- I have been involved in several research programs including ProFun (SSF: RIT08-0065), "Morgondagens kommunala vattenrening-en produktionsanläggning för nyttigheter" (Vinnova: 2012-01243) and (Vinnova: 2014-040309), Danena (Formas 2010-141), Framtida funktioner för efterbehandling av avgaser 2009-2013, Energimyndigheten dnr: 2009-001786 (collaboration with Scania), and the EU-projects DIAMOND (FP7-SME-315145) 2012-2014, see <http://www.diamond-eu.org>, HipCon Ref 505467 FP6-NMP) 2004-2006. Between 2000-2004, I was a project leader for Innovative Information System which was supported by MISTRA within the project "Urban Water Management".
- I am responsible for the development of a unique simulators for studying the activated sludge process in wastewater treatment plants. The simulator is used both for research and education of students and plant personell, se further: <http://www.it.uu.se/research/project/jass/>
- Distinguished member of The IWA Fellows Program (2011). I was one of the two first Swedish researchers who got this prestigious award.

Selected Other Merits of Relevance

- Member of Scientific Committee and Charman for several international conferences.
- Reciever of *The Best Teacher Award* (Tuppenlärarpriset) 1996, from the engineering students at Uppsala University.
- Reciever of *Vågtoppenpriset*. Motivation (in Swedish): "Härmed tillkännages att W-sektionens pris Vågtoppen 2007 tilldelas Bengt Carlsson för att han genom inspirerande och verklighetsanknyten undervisning samt stort engagemang för programmet och dess studenter varit en nyckelperson på civilingenjörsprogrammet i Miljö- och vattenteknik".
- In 2014, I got the *Uppsala University pedagogical award*. Motivation: Bengt Carlsson has, for many years, distinguished himself as a teacher and educational leader. His great commitment to student learning provides inspirational and practice-related teaching. He contributes to successful course development with projects engaging students and offering strong links to research and professional life. Bengt's educational leadership is characterized by respect and acceptance. He ensures student and staff involvement in the development of quality, both in terms of teaching and learning environments."
- I have 15 times been a member of examination committee for PhD thesis. I have acted as an "Opponent" (evaluator) for three licentiate theses. I have five times acted as an expert for evaluating candidates for various academic positions (including two applications for Professor)
- I am a co-inventor of one patent: B. Carlsson, M. Saha and M. Björklund. Reconstruction of saturated current transformer signals. Swedish patent allowed in Dec 1993. Patent number 9200011-6.
- I am frequently appointed to session chairman at international conferences and member of conference programme committees.
- Author/co-author of more than 100 scientific publications; with h-index 21 and i10-index 34, number of citations = 1500 according to Google Scholar Jan. 23, 2016 (details at <http://tinyurl.com/zgpenyk>)

Research Profile

Research in Automatic Control/Signal Processing/System Identification with focus on modelling, simulation, control and diagnostics in wastewater treatment systems. In particular, I have developed novel automatic control strategies for wastewater treatment plants which improves plant performance (typically reducing the energy consumption without reducing the effluent quality). The last five year I have broaden the research field and are now also studying monitoring and fault detection in wastewater treatment plants. Here we apply techniques from machine learning, estimation theory and statistics.

My research related to wastewater system engineering are summarized here:
http://www.it.uu.se/research/syscon/automatic/modcont_waste.