

CURRICULUM VITAE

HÅKAN HJALMARSSON

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ACADEMIC DEGREES

August 1988 Master of Science, *Civilingenjör*, Telecommunication, Linköping University, Linköping, Sweden.

November 1990 Licentiate of Engineering (Automatic Control), Linköping University, Linköping, Sweden.

April 1993 PhD in Engineering (Automatic Control), Linköping University, Linköping, Sweden.

Thesis title: Aspects On Incomplete Modeling in System Identification

Supervisor: Lennart Ljung

February 1997 Docent in Signal Processing, Royal Institute of Technology, Sweden.

ACADEMIC APPOINTMENTS

August 1986 – September 1988 Teaching assistant at the Department of Mathematics, Linköping University, Linköping, Sweden.

August 1988 – June 1991 Teaching assistant at the Department of Electrical Engineering, Linköping University, Linköping, Sweden.

July 1991 – August 1992 Lecturer/Visiting Associate at the Department of Chemical Engineering, California Institute of Technology, Pasadena, USA.

September 1992 – August 1993 Teaching assistant at the Department of Electrical Engineering, Linköping University, Linköping, Sweden, 1992-1993.

September 1993 – March 1994 Research associate at the Centre for Systems Engineering and Applied Mechanics (CESAME), University of Louvain, Belgium

March 1994 – February 1995 Research associate at the Dept. of Electrical Engineering, Linköping University, Sweden

August 1995 – December 1995 Research fellow at the Dept. of Electrical Engineering and Computer Science, University of Newcastle, Australia.

March 1995 – January 1997 Assistant Professor in Signal Processing at the Dept. of Signals, Sensors and Systems, Royal Institute of Technology, Sweden.

March 1996 – March 1997 Acting Head of the Signal Processing Group, Royal Institute of Technology.

- February 1997 – December 1998 Associate Professor in Signal Processing at the Dept. of Signals, Sensors and Systems, Royal Institute of Technology, Sweden.
- January 1999 – 2002 Head of the Automatic Control Group, Department of Signals, Sensors and Systems, Royal Institute of Technology.
- December 2002 – June 2003 Visiting professor at the School of Electrical Engineering and Computer Science, University of Newcastle, Australia.
- March 2003 – Professor in Signal Processing in the Automatic Control Group at the Dept. of Signals, Sensors and Systems, Royal Institute of Technology, Sweden.
- February 2007 – Director of Graduate Studies, School of Electrical Engineering, Royal Institute of Technology, Sweden.

OTHER APPOINTMENTS

- 1996 – 2002 Associate Editor for *Automatica*.
- 1999 – 2000 Member of the International Program Committee for the 12th IFAC Symposium on System Identification, Santa Barbara, CA, 2000.
- 2000–2002 Guest Editor for special section on *Iterative Feedback Tuning. Theory and Applications*. Control Engineering Practice.
- 2001–2002 Guest Editor for special issue on *Design and optimisation of restricted complexity controllers*. European Journal of Control.
- 2002–2003 Member of the International Program Committee for the 13th IFAC Symposium on System Identification, Rotterdam, NL, 2003
- 2006 Program Chair and General Co-Chair for the 14th IFAC Symposium on System Identification, Newcastle, Australia, 2006.
- 2004 – Associate Editor for IEEE Transactions on Automatic Control.
- 2005 – Member of ERCIM Working Group on Control and Systems.
- 2006 – Co-Chair of IFAC Technical Committee on Modeling, Identification and Signal Processing (TC-MISP) (member since 1996)
- 2007–2008 Associate Editor for the 2008 IFAC World Congress in Seoul, Korea.

KEYNOTE ADDRESSES

- August 27, 2003 From experiments to closed loop control. Opening plenary at SYSID 2003, Rotterdam, The Netherlands

AWARDS

- 1991 Grant for advanced studies abroad. Stiftelsen Blanceflor Boncompagni-Ludovisi, Född Bildt.
- 1991 International research scholarship. Swedish Institute.
- 1991 Best presentation at the Baltic Olympiade in Automatic Control. St. Petersburg.
- 2001 The KTH Award for outstanding contribution to the undergraduate education program at the Royal Institute of Technology, Stockholm, Sweden.

WORKSHOPS

Organiser of the workshop “New Trends in Automatic Tuning” at

- IEEE Conference on Decision and Control, Sydney Dec, 2000 and
- IEEE American Control Conference, Arlington, June, 2001.

SUPERVISION

PHD AND LICENTIATE DEGREES

- Ola Markusson. “Model Inversion and Spectral Matching”, Licentiate thesis. December, 1999.
- Kristian Lindqvist. “On Experiment Design in Identification of Smooth Linear Systems”, Licentiate thesis. June 15, 2001.
- Ola Markusson. “Model and system inversion with applications in nonlinear system identification and control”, PhD thesis. January 24, 2002.
- Henrik Jansson. “Identification for Control: Using Sensitivity Information to Improve Quality of Restricted Complexity Models”, Licentiate thesis. May 2002.
- Henrik Jansson. “Experiment design with applications in identification for control”, PhD thesis. December 2004.
- Mats Tallfors. “Parameter Estimation and Model Based Control Design of Drive Train Systems”, Licentiate thesis. January 2005.
- Katrin Strandemar. “On Objective Measures for Ride Comfort Evaluation”, Licentiate thesis. November 25, 2005.
- Märta Barenthin. “On Input Design in System Identification for Control”, Licentiate thesis. June 15, 2006 (Co-supervisor).
- Jonas Mårtensson. “Geometric Analysis of Stochastic Model Errors in System Identification”. PhD thesis. October 31. 2007
- Krister Jakobsson. PhD thesis. Planned for March 2008.

MSc DIPLOMA

- Magnus Kamel. “Design and implementation of a fuzzy controller for AICC”. 1996. CelsiusTech. 20 credits.

- Mattias Wallman. "Disturbance Supression in FMCW Radar Signals". 1996. CelsiusTech. 20 credits.
- Staffan Lingvall. "An evaluation of different speech codecs applicable to an RLL system". 1996. Ericsson Radio Access. 20 credits.
- Jonas Persson. "Detection using Covariance Matching with Application to Radar Signals". 1996. S³, KTH. 20 credits.
- Jacob Rengman. "Utveckling av ett DSP-kort för motorstyrning". 1997. Atlas Copco Controls. 20 credits.
- Thom Birkeland. "Methods for Automatic Controller Tuning for SISO and MIMO Systems. With Focus on Iterative Feedback Tuning". 1997. S³, KTH. 20 credits.
- Roger Bou Faisal. "An optical method for analysis of formation nonuniformity in paper". 20 credits. 1998
- Joakim Lingman. "Pacemakerdetektor med kurvigenkänning och förbättrad störundertryckning". 1998. Pacesetter AB. 20 credits.
- Mats Rydgren. "Channel Equalizer for the RAS1000 P15 System". 1998. Ericsson Radio Access. 12 credits.
- Brice Magret. "Application of PID Tuning Methods to some Nonlinear Processes". 1999. S³, KTH. 20 credits.
- Anna Falkenberg. "Experimental Evaluation of Iterative Feedback Tuning for Controller Tuning in Robotics Using a PUMA 560 Manipulator". 1999. S³, KTH. 20 credits.
- Niklas Fougelberg. "Analysis of timing-recovery in DMT xDSL Modems". 2000. Ericsson Telecom AB. 20 credits.
- Johan Sjögren. "Rejection of periodic disturbances using Iterative Feedback Tuning". 2000. S³. KTH. 20 credits.
- Arif Mohammed. "Work Roll Cooling Control System". 2001. ABB Automation Systems AB. 20 credits.
- Björn Henriksson. "Control Relevant Identification of Nonlinear Systems using Linear Models". 2000. S³, KTH. 20 credits.
- Per Grådal. "Styrning av starkt accelererande robot". 2000. Bofors Missiles AB. 20 credits.
- Amir Tork. "A Simplified Approach to Nonlinear Dynamic Inversion based Flight Control". 2000. FFA. 20 credits.
- Peter Medin. "Multivariable Thickness Control of Tandem Mills". 2000. ABB Automation Systems AB. 20 credits.
- Marine Auvert. "Network Flaps – A Strategy for Congestion Avoidance in Computer Networks". 2001. S³, KTH. 20 credits.
- Stephan Küpper. "Robust Stabilization Using Iterative Feedback Tuning". 2001. S³, KTH. 20 credits.

- P. Rybing. "Active noise control in home environment". 2003. S³, KTH. 20 credits.
- Johan Aglert. "Digital feedback control of the frequency response of a conventional loudspeaker". 2004. S³, KTH. 20 credits.
- Björn Gustavsson. "Model based control design in the low frequency region of a loudspeaker". 2004. S³, KTH. 20 credits.
- Nancy Grennstam. "On Predicting Milk Yield and Detection of Ill Cows". 2005. S³, KTH. 20 credits.
- Nicklas Lundin. "Prediction of Milk Yield for Dairy Cows". 2005. S³, KTH. 20 credits.
- Michael Hallencreutz Redmond. "Implementation and Evaluation of TCP-Clones". 2005. S³, KTH. 20 credits.