

Steffi Knorn

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Education

Ph.D., *Hamilton Institute, National University of Ireland Maynooth*, Ireland. **12.09.2013**
Study period: 11/2008 – 01/2013.
Supervisor: Prof. Richard H. Middleton, Co-Supervisor: Prof. Robert N. Shorten
Title: A Two-Dimensional Systems Stability Analysis of Vehicle Platoons

Diplom Ingenieur, *Otto-von-Guericke University Magdeburg*, Germany. **10/2008**
Study period: 10/2003 – 09/2008.
Degree: Master of Engineering in Control (Diplom Ingenieur Systemtechnik und Technische Kybernetik), with First Class Honours

Experience

Postdoctoral Researcher, *Uppsala University*, Uppsala, Sweden. **02/2014–present**
Research interests: optimal control subject to energy constraints, energy harvesting, wireless energy transfer, wireless communication, and scalability and stability of networked systems
Teaching: head teacher for third year course Embedded Signal Processing Systems (1TE682)

Research Associate, *The University of Newcastle*, Callaghan, NSW, Australia. **01/2013–01/2014**
Research interests: control theory and its applications, linear and nonlinear two-dimensional system theory, controller design, and scalability and stability of port-Hamiltonian systems
Teaching: developing online self-study material and tutoring for first year course Electrical Engineering 1, tutoring for fourth year course Control Theory

Casual Academic Lecturer, *The University of Newcastle*, Callaghan, NSW, Australia. **04/2013–08/2013**
Teaching: head teacher for third year course Signal Processing

Ph.D. Candidate, *Hamilton Institute, National University of Ireland Maynooth*. **10/2008–12/2012**
Research interests: stability of linear and nonlinear two-dimensional system, string stability (scalability) of vehicle platoons
Visiting academic to The University of Newcastle, Australia, between 02–12/2012

Freelance work, Maynooth, Ireland. **03–12/2011**
Development, data acquisition and programming of an Apple iOS application (“Maynooth App”)
Sold to the National University of Ireland Maynooth

Parental Leave. **06/2009–04/2010**

Master’s Student, *Hamilton Institute, National University of Ireland Maynooth*. **04–09/2008**
Research interests: String stability problems in vehicle traffic

Research Intern, *Research and Development, Daimler AG*, Böblingen, Germany. **10/2007–03/2008**

Design, implementation and comparison of different observer strategies to detect the roll angle of passenger vehicles

Research Assistant, *Department of Automation and Systems, Federal University of Santa Catarina*, Florianópolis, SC, Brazil. **03–09/2007**

Research interests: modelling and design of supervisory control of a manufacturing cell, and implementation of the control algorithm

Research Assistant, *Max Planck Institute for Dynamics of Complex Technical Systems*, Magdeburg, Germany. **10/2004–02/2007**

Simulation of biological networks using Matlab

Supervision of Students

Robin Smit, *visiting student from Eindhoven University of Technology*, Eindhoven, The Netherlands, Student internship. **05-07/2015**

Research topic: String Stability in Vehicle Platoons with Synchronised Motion

Aarti Sheorayan, *The University of Newcastle, Australia*, Final year project. **08-11/2014**

Research topic: Online Tutor for Electrical Circuits

Grants

Project Research Grant, *Vetenskapsrådet*, Sweden. **03/2014, 03/2015**

Topic: Robust String Stability and Scalability of Multi-Agent Systems

Decision: pending (2015 application)

Teaching and Learning Project Grant, *Centre for Teaching and Learning, The University of Newcastle*, Callaghan, NSW, Australia. **11/2013-01/2014**

Purpose: production of audio and video material for first year course Electrical Engineering

Role: supervision of four tutors producing audio and video files explaining solutions of self study exercises

Decision: received, 10.000 Australian Dollars

Distinctions and Awards

Best Student Paper Award, *2nd Australian Control Conference*, Sydney, Australia, IEEE Control Systems Society technically co-sponsored national conference, attended by approximately 200 researchers. **11/2012**

The award (including 500 AUD prize) is given to the best out of 50-100 papers authored by PhD students.

Faculty prize, *Faculty of Electrical Engineering and Information Technology*, Magdeburg, Germany. **09/2009**

Scholarship, *German National Academic Foundation*. **02/2007–09/2008**

Included an abroad scholarship to visit the Hamilton Institute, National University of Ireland Maynooth, Ireland, in 04-09/2008 and a travel scholarship to attend the ACM Symposium On Applied Computing 2008 in Fortaleza, CE, Brazil in 03/2008

Scholarship, *Friedrich Naumann Foundation for Freedom*. **04/2006–09/2007**

Included an abroad scholarship to visit the Department of Automation and Systems, Federal University of Santa Catarina, Florianópolis, SC, Brazil in 03-09/2007

Student Representative

President of Student Representative, Faculty for Process and Systems Engineering, Otto-von-Guericke University Magdeburg, Germany. 2005-2007
Initiated, organised and conducted first evaluation of faculty wide teaching and tutoring.

Elected Member of Student Representative, Faculty for Process and Systems Engineering, Otto-von-Guericke University Magdeburg, Germany. 2004-2007

Languages

German: Native speaker

English: Full professional proficiency

Lived in Ireland & Australia 2008-2013

Swedish: Professional working proficiency

Living in Sweden since 2014

Spanish: Professional working proficiency

Lived in Argentina 2000–2001

Portuguese: Professional working proficiency

Lived in Brazil in 2007

French: Limited working proficiency

Six years of high school studies

Steff Karsen

Uppsala, 31 July 2013