Vahid Samadi Bokharaie

Personal Information

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Citizenship: Iranian   **D.O.B:** Dec. 8, 1978

Education

National University of Ireland, Maynooth, Co. Kildare, Ireland

Ph.D., Hamilton Institute, 2008-2011

Thesis Topic: On Stability of Nonlinear and Switched Positive Systems
Adviser: Dr. Oliver Mason
Area of Study: Control Engineering / Applied Math

K. N. Toosi University of Technology, Tehran, Iran

Master of Science, Electrical Engineering Department, September 2003

Thesis Topic: Automatic Loop-Shaping of QFT Controllers Using LMI Theory and Genetic Algorithms
Adviser: Prof. Ali Khaki-Sedigh
Area of Study: Control Engineering

Ferdowsi University of Mashhad, Mashhad, Iran

Bachelor of Science, Electrical Engineering Department, September 2000

Thesis Topic: Simulating Some Fuzzy Control Algorithms Using C++ Programming Language
Adviser: Dr. Mohammad-Reza Akbarzadeh
Area of Study: Control Engineering

Papers

- Vahid S. Bokharaie, Oliver Mason and Fabian Wirth, "Stability and Positivity of Equilibria for Subhomogeneous Cooperative Systems", To Appear in *Nonlinear Analysis*. PDF

- Vahid Samadi Bokharaie, Oliver Mason and Mark Verwoerd, "D-Stability and Delay-Independent Stability of Homogeneous Cooperative Systems", *IEEE Transactions on Automatic Control*, Vol. 55, No. 12, pp. 2882-2885, Dec. 2010. PDF

- Vahid S. Bokharaie, Oliver Mason and Fabian Wirth, "On the D-Stability of Linear and Non-linear Positive Switched Systems", *In Proceedings of International Symposium on Mathematical Theory of Networks and Systems (MTNS),* pp. 1717-1719, Budapest, Hungary, 2010. PDF

- Vahid S. Bokharaie, Oliver Mason and Fabian Wirth, "Spread of epidemics in time-dependent networks", *In Proceeding of International Symposium on Mathematical Theory of Networks and Systems (MTNS)*, pp. 795-798, Budapest, Hungary, 2010. PDF

- Oliver Mason, Vahid S. Bokharaie, Robert Shorten, "Stability and D-stability for Switched Positive Systems", *In Proceeding of the third Multidisciplinary Symposium on Positive Systems (POSTA09)*, pp 101-109, 2009. PDF

- Vahid Samadi Bokharaie and Ali Khaki-Sedigh, "An LMI Approach to Automatic Loop-Shaping of QFT Controllers", *In Proceedings of International Control Conference*, Glasgow, pp. 291-296, UK, 2006. PDF

Papers (in preparation)

- Vahid S. Bokharaie, Oliver Mason, Fabian Wirth and Mustapha Ait Rami, "Stability properties of epidemiological systems with time-varying parameters".

- Vahid S. Bokharaie and Oliver Mason, "D-stability conditions for Switched Sub-homogeneous Cooperative Systems".

Book Translation

- Translation (from English to Persian) of "Engineering Applications of MATLAB and SIMULINK," by Mohand Mokhtari and Michele Marie, Springer Verlag, 2000.

Computer Skills

Hardware: 80x86 and Pentium machines, Siemens PLCs, 8051 family of micro-controllers.

Software: C, C++, Matlab (Control Systems, System Identification, Optimisation, Fuzzy Logic, Robust Control and Neural Networks toolboxes), Latex, most common productivity packages (in Windows and Linux platforms).

Relevant Courses

During Master and Bachelor Study

- Probability and Statistics
- Numerical Methods
- Linear Control
- Digital Control
- Modern Control
- Industrial Control
- Instrumentations
- Computer Networks
- Electronics I, II, III
- Electrical Machines I, II

- Fuzzy Control
- Multivariable Control
- System Identification
- Neural Network
- Advanced Engineering Math
- Optimal Control
- Adaptive Control
- Nonlinear Control
- Robotics
- Robust Control

Graduate Courses during PhD study

- Elgersburg School 2011 (Elgersburg, Germany):

    - Nonlinear Control (Prof. Randy Freeman)

    - Observers for Nonlinear Systems (Prof. Laurent Praly)

- Network Math Graduate Programme 2009-2011 (Hamilton Inst./Trinity College):

    - Applied Optimisation (Prof Venkatamaran Balakrishnan)

    - Introduction to Markov Processes (Prof. Christof Schütte)

    - Discrete Event and Hybrid Systems (Prof. Joerg Raisch)

    - Introduction to Dynamic Systems (Prof. Martin Corless)

    - Queuing Theory and Performance Analysis (Prof. Onno Boxma)

    - Numerical Linear Algebra (Prof. Volker Mehrmann)

    - Adaptive Control and Neural Networks (Prof. Kumpati Narendra)

    - Network Architecture and Algorithms via Optimization (Prof. R. Srikant)

    - Applied Probability and Stochastic Processes (Dr. Olivier Leveque)

Reviewer

- Reviewer for "Systems and Control Letters".
- Reviewer for "AMS Mathematical reviews".

Affiliations, Activities, Achievements

- Member of IEEE Control Systems Society.
- Representative of Hamilton Institute in NUIM Graduate Feedback Council, 2010.
- Presenting a paper and chairing the "Stability and Switching" session in MTNS2010.
- Member of Amnesty International, Ireland Chapter.
- Member of Irish Aikido Federation.
- Member of NUIM Snooker club.
- Seven years of education in NODET (National Organization for Developing Exceptional Talents), Mashhad, Iran.
- Completing elementary school in 3 years (instead of 5 years).

Teaching Experiences

- Professional Certificate in Teaching and Learning (PCTL), NUI Maynooth, 2010.
- Positive Linear Systems, an unofficial course taught to PhD students in Hamilton Institute, 2nd semester, 2009-2010.
- Teaching assistantship for Linear Control and Modern Control courses for 3 semesters in K.N. Toosi University of Technology.
- Several technical training courses for different customers in ZTE Company.

Professional Experiences

- **Ericsson, Iran Representative Office,**
  Customer Project Manager (August 2007 – November 2008).

  Managing different projects for two main telecom operators of Iran. My last position was Project Manager of BSC installation and commissioning in MTN/Irancell Network and at the same time, MVI (Multi-Vendor Issues) Manager of Ericsson for MTN/Irancell network.

- **ZTE Corp., Iran Representative Office**,
  Engineer (Sep 05 – May 06) and Project Manager (Apr 06- Jul 07).

- **Asr-e Ertebat Weekly** (Part time job during military service)
  English to Persian Translation of IT articles (Aug 04 – Sep 05)

- **Tamkin-Foulad Co.** (Part time job during military service)
  Sales Engineer (Dec 04 – Apr 05)

References

Dr. Oliver Mason (e-mail: oliver.mason@nuim.ie, phone: +353-1-708-6274)

>	Hamilton Institute, NUI Maynooth, Ireland

>	Dr. Mason is my PhD adviser.

Prof. Fabian Wirth (e-mail: wirth@mathematik.uni-wuerzburg.de, ph: +49-931-3183436)

>	Institut für Mathematik, Universität Würzburg, Germany.

>	Prof. Wirth is a research collaborator.

Dr. Mark Verwoerd (e-mail: mark.verwoerd@cellro.com, phone: +31-318627100)

>	Software Application Developer (Team Leader), Cellro Smart Production, Netherlands

>	Dr. Verwoerd was a research collaborator when he was in Hamilton Institute.

Ted Jankun (e-mail: ted.jankun@ericsson.com)

>	Program Director at Ericsson Canada

>	Mr. Jankun was the head of Project Management Office (PMO) when I was a project manager at Ericsson Iran.