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CURRICULUM VITAE

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Education

2006-present **Post-Doc. in Diagnostic and Control Laboratory**
Simon Frazer University (SFU), Canada
1993-1996 **Ph. D. in Information Sciences**
Tokyo Denki University (TDU), Japan
1991-1993 **M. S. in Information Sciences**
Tokyo Denki University (TDU), Japan
1979-1984 **B. S. in Mathematics**
Xinjiang University, Xinjiang, China

Professional Activities

2004-2005 Associate Professor, the 21st Century COE Project Office, Tokyo Denki University
1999-2004 Instructor, Department of Information Sciences, Tokyo Denki University
1998-1999 System Engineer, Algotechnos21 Cooperation.

- 1996-1998 Part time Instructor and Research Fellow, Department of Information Sciences, Tokyo Denki University
- 1984-1991 Instructor, Department of Mathematics, Xinjiang University

Field of Specialization

1. Mathematical System Theory and Control Theory
2. Neural Network Theory and Its Application to Associative Memory
3. Machine Vision Theory

Members of Academic Societies

1. Society of Instrument and Control Engineers (SICE) of Japan
2. Institute of Electrical and Electronics Engineers (IEEE)

Listed in "Who's Who in the World", pp.5, 2006

Publications

- 1) **R. Abdursul**, H. Inaba and B. Ghosh, Nonlinear observers for perspective linear systems, *Automatica*, Vol. 40, Issue 3, pp.481-490, 2004.
- 2) **R. Abdursul** and H. Inaba, Nonlinear Observers for Perspective Time-Varying Linear Systems, *Wseas Transactions on Systems*, Vo. 3, pp.182-188, 2004.
- 3) N. Otsuka and **R. Abdursul**, Necessary and sufficient conditions for generalized invariant subspaces, *Wseas Transactions on Systems*, Vo. 3, pp.189-192, 2004.
- 4) H. Inaba, **R. Abdursul** and Satoru Takahashi, Doubly Coprime Representation of Linear Systems and Its Application to Simultaneous Stabilization, *IMA journal of Mathematical Control and Information*, Vol. 20, pp.21-35, 2003.

Papers Presented at Conferences

- 5) H. A.Gabbar, R. Datu, H. Fushimi, M. Kamel, **R. Abdursul**. Learning Mechanisms for Intelligent Fault Diagnosis, *Proc. of the IEEE International Conference on Systems, Man, and Cybernetics*, Taipei, Taiwan, Oct. 8 - Oct. 11, 2006
- 6) H. Inaba and **R. Abdursul**, Nonlinear Observers for time-varying systems Appearing in Dynamical Machine Vision, *Proc. of the 16th IFAC World Congress*, Prague, Czech, July 2005.
- 7) **R. Abdursul** and H. Inaba, Nonlinear Observers for Time-varying Systems with Multi Perspective Observations, *Proc. of the 2st COE Workshop on Human Adaptive Mechatronics(HAM)*, pp117-120, Tokyo Denki University, JAPAN, March 2005.
- 8) H. Inaba, **R. Abdursul** and B. K. Ghosh, Nonlinear Observers Appearing in Dynamical Machine Vision, *Proc. of the 43th IEEE Conference on Decision and Control (CDC'04)*, Nassau, Bahamas, December 2004.
- 9) T. Atajan, Hiroshi Inaba and **R. Abdursul**, Algebraic Properties of the 2-Dimensional (0,1)-RLL Channels, *Proc. of the International Symposium on Communications and Information Technologies(ISCIT 2004)*, Hokkaido, JAPAN, October 2004.
- 10) T. Atajan, H. Inaba and **R. Abdursul**, The Transfer Matrix and the Capacity for the Two-Dimensional Run-Length Limited Channels, *Proc. of the 1st COE Workshop on Human Adaptive Mechatronics(HAM)*, pp149-152, Tokyo Denki University, JAPAN, March 2004.
- 11) N. Otuka and **R. Abdursul**, Equivalent Conditions for Generalized Invariant Subspaces, *Proc. of the 1st COE Workshop on Human Adaptive Mechatronics (HAM)*, pp89-92, Tokyo Denki University, JAPAN, March 2004.
- 12) H. Inaba, **R. Abdursul** and B. K. Ghosh, Nonlinear Observers Appearing in Dynamical

- Machine Vision, *Proc. of the 1st COE Workshop on Human Adaptive Mechatronics(HAM)*, pp61-74, Tokyo Denki University, JAPAN, March 2004.
- 13) X. Chen H. Kano and **R. Abdursul**, Perspective Observation Based Motion Recovery, *Proc. of the International Conference on Intelligent Mechatronics and Automation (ICIMA 2004)*, Chengdu, China, August 2004.
 - 14) **R. Abdursul**, H. Inaba and B. K. Ghosh, Nonlinear Observers for Perspective Time-Invariant Linear Systems, *Proc. of the 42th IEEE Conference on Decision and Control (CDC'03)*, Hawaii, USA, December 2003.
 - 15) **R. Abdursul** and H. Inaba, Nonlinear Observers for Perspective Time-Varying Linear Systems, *Proceedings of 2002 International Conference on Control, Automation and Systems, ICCAS 2002*, pp.1402-1406, Muju, KOREA, December 2002.
 - 16) N. Otsuka and **R. Abdursul**, Further Studies on Generalized Invariant Subspaces, *Proceedings of The 17th IEEE Region 10 International Conference on Computers, Communications, Control and Power Engineering (TENCON'02)*, CD-ROM, Beijing, China, October 2002.
 - 17) **R. Abdursul**, H. Inaba and B. K. Ghosh, Nonlinear observers for perspective linear systems, *Proceedings of European Control Conference (ECC'01)*, pp.2930—2935, Porto, Portugal, September 2001.
 - 18) H. Inaba, A. Yoshida, **R. Abdursul** and B. K. Ghosh, Observability of perspective dynamical systems, *Proc. of the 39th IEEE Conference on Decision and Control(CDC'00)*, Sydney, Australia, December 2000.
 - 19) H. Inaba and **R. Abdursul**, Nonlinear Observers for Perspective Time-Varying Linear Systems, *4th SIAM Conference on Linear Algebra in Signals, Systems and Control*, Boston, America, August 2001.
 - 20) H. Inaba and **R. Abdursul**, A note on nonlinear observers for perspective linear systems, *International Linear Algebra Society Conference, Abstracts*, p.34, Haifa, Israel, June 2001.
 - 21) **R. Abdursul**, H. Inaba and S. Takahashi, A representation of linear systems and its application, *International Linear Algebra Society Conference, Abstracts*, p.79, Barcelona, Spain, July 1999.
 - 22) **R. Abdursul** and H. Inaba, Simultaneous stabilization in the Callier-Desoer class of infinite-dimensional systems, *Proceedings of the third European Control Conference*, vol.3, pp.2579-2584, Rome, Italy, September 1995.
 - 23) H. Inaba, **R. Abdursul** and S. Takahashi, A representation theory of linear systems and its application to simultaneous stabilization, *Proceedings of Korea Automatic Control Conference (International Sessions)*, pp.24-27, Taejeon, Korea, 1994.
 - 24) N. Otsuka and **R. Abdursul**, Equivalent Conditions for Generalized Invariant Subspaces, *Proceedings of the 38th Japan Joint Automatic Control Conference*, Okayama, Japan, November 2003.
 - 25) N. Otsuka and **R. Abdursul**, A Note on Generalized Invariant Subspaces, *Proc. Of the 34th SICE Hokkaido Sibu Symposium*, pp. 9-12, Hokkaido, Japan, January 2002.
 - 26) **R. Abdursul**, H. Inaba and B. Ghosh, A note on nonlinear observers of perspective linear systems, *Proc. of the 23rd SICE Symposium on Dynamical Systems Theory*, pp. 175-178, Nagaoka, Japan, December 2000.
 - 27) **R. Abdursul** and H. Inaba, Nonlinear observers of perspective linear systems in machine vision, *Abstracts of the 32nd International ISCIE Symposium on Stochastic Systems Theory and its Applications*, pp. 16-17, Tottori, Japan, November 2000.
 - 28) H. Inaba, **R. Abdursul** and B. K. Ghosh, A note on observability of perspective dynamical systems, *Proc. of the 23rd SICE Symposium on Dynamical Systems Theory*, pp. 171-174, Nagaoka, Japan, December 2000.
 - 29) H. Inaba and **R. Abdursul**, A note on robust control for delay systems, *Proceedings of the 40th Annual Conference of the Institute of Systems, Control and Information Engineers*, Kyoto, Japan, May 1996.
 - 30) H. Inaba and **R. Abdursul**, Simultaneous stabilization in the Callier-Desoer class of infinite-dimensional systems, *Proc. of the 17rd SICE Symposium on Dynamical Systems Theory*, pp. 93-98, Chiba, Japan, November 1994

- 31) **R. Abdursul** and H. Inaba, Stabilizability for a flexible inverted pendulum using the normalized coprime factorization over RH_∞ , *Proceeding of the 22nd SICE Symposium on Control Theory*, pp. 109-112, 1993. (in Japanese)

Research Report

- 32) H. Inaba, **R. Abdursul** and S. Takahashi, Doubly Coprime Representation of Linear Systems and Its Application to Simultaneous Stabilization, *Research Report TDU-IS-59*, Department of Information Sciences, TDU, November 2002.
- 33) T. Atajan, H. Inaba and **R. Abdursul**, Transfer Matrices and the Number of Independent Sets in Grid Graphs, *Research Report TDU-IS-59*, Department of Information Sciences, TDU, September 2002.
- 34) N. Otsuka and **R. Abdursul**, A Note on Generalized Invariant Subspaces, *Research Report TDU-IS-57*, Department of Information Sciences, TDU, November 2001.
- 35) H. Inaba, A. Yoshida and **R. Abdursul**, Observability of Perspective Dynamical Systems, *Research Report TDU-IS-55*, Department of Information Sciences, TDU, May 2001.
- 36) **R. Abdursul** and H. Inaba, Nonlinear observers for perspective linear systems, *Research Report TDU-IS-54*, Department of Information Sciences, TDU, May 2001.
- 37) **R. Abdursul** and H. Inaba, Simultaneous stabilization in the Callier-Desoer class of infinite-dimensional systems, *Research Report TDU-IS-53*, Department of Information Sciences, TDU, May 2001.

This is one of my favorite photographs.



With great scientist [R. E. Kalman](#), on the 16th IFAC World Congress, Prague, Czech, July 2005