


Curriculum Vitae

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Position /Office Address	Post Doctoral Researcher MITANI LAB, Department of Electrical Engineering, Kyushu Institute of Technology (KIT), 1-1 Sensui-cho, Tobata-ku, Kitakyushu-shi, Fukuoka 804-8550, JAPAN	
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Education	Doctor of Engineering (Electrical Power) MITANI LAB, Graduate School of Engineering, KIT, JAPAN	10/2005-09/2008
	Research Student MITANI LAB, Graduate School of Engineering, KIT, JAPAN	10/2004-09/2005
	M.Sc. in Engineering (Electrical Power) Sirindhorn International Institute of Technology (SIIT), Thammasat University (TU), THAILAND	06/2000-05/2003
	B.Eng. in Electrical Engineering (Power System) SIIT, TU, THAILAND	06/1996-03/2000
Research Interests	<ul style="list-style-type: none">• Smart grids & energy efficiency with Distributed Energy Resources (DERs) concerning applications & effects of renewable energy technology• Applications of Computational Intelligence (CI) and Modern heuristics optimization to power & energy systems and control• Power system dynamics, stability and robust control	
Research Experiences	Post Doctoral Research Development of an intelligent Supervisory Control (iSC) system based on Synchronized Phasor Measurement (SPM) and CI	10/2008-Present
	Collaborative Project with Fuji Electric Systems Development of a combined-cycle power plant simulation model by Modelica	09/2007-Present
	Selected research topics: <ul style="list-style-type: none">• Metaheuristic-based robust controller design of controllable distributed generator for stabilization of interconnected power systems• Design of robust power system damping controllers by using tabu search• H_∞ robust controller design in power systems• Parallel implementation of tabu search for solving constrained economic dispatch in large scale power systems• Modern heuristic method solutions to constrained economic dispatch	

Work Experiences	Post Doctoral Researcher Mitani Lab, Dept. of Electrical Engineering, KIT, JAPAN	10/2008-Present
	Senior R&D Engineer Mobilis Automata Co. Ltd., THAILAND	06/2003-09/2004
	Teaching Assistant SIIT, TU, THAILAND	06/2000-03/2004
Training Experiences	ManA Frozen Food Co., LTD. (Songkla, THAILAND) Responsibility: Schedule compressors in machine room.	03/1999
	Tokyo Electric Power Company (TEPCo). (Tokyo, JAPAN)	05/1999
Awards & Scholarships	Excellent student award (IEEE Fukuoka Section)	2006
	Japanese Government Scholarship (Monbusho)	10/2004-09/2008
	Full research and teaching assistant scholarship provided by SIIT, TU.	06/2000-05/2003
	Cement Thai Scholarship Student provided by Siam Cement PCL Thailand	1999
	Sanwa Bank Scholarship Student	1998
	Keidanren Scholarship Student	1997
Outstanding Performance Student	1997	
Languages	Fluent in Thai and English Moderate Japanese.	
Computer skills	Languages: Modelica, C/C++, Basic, Assembly, PLC. Software: MATLAB/Simulink, Dymola, Mid-fielder, EuroStag, LaTeX, MS-Office.	
References	1. Dr. Yasunori MITANI, <i>Professor</i> Department of Electrical, Electronic and Computer Engineering, Faculty of Engineering, Kyushu Institute of Technology, Fukuoka 804-8550, JAPAN Tel. no. +81-93-884-3222 Email: mitani@ele.kyutech.ac.jp	
	2. Dr. Issarachai NGAMROO, <i>Associate Professor</i> Department of Electrical Engineering, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang, Bangkok 10520, THAILAND Tel. no. +66-2326-4550 Email: ngamroo@gmail.com	
	3. Dr. Weerakorn ONGSAKUL, <i>Associate Professor</i> Energy Program, Asian Institute of Technology, Pathumthani 12120, THAILAND Tel. no. +66-2524-5421 Email: ongsakul@ait.ac.th	

Selected Publications**Technical Journals**

1. Dechanupaprittha, S., Sakamoto, N., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I., (2009). Design and analysis of robust SMES controller for stability enhancement of interconnected power system taking coil size into consideration. *IEEE Transactions on Applied Superconductivity*, Vol. 19, No. 3, pp. 2019-2022. (Special Issue ASC 2008). *Also presented at the *2008 Applied Superconductivity Conference (ASC 2008)*, 17 – 22 Aug. 2008, Chicago, IL, USA.
 2. Ngamroo, I., A.N. Cuk Supriyadi, Dechanupaprittha, S., and Mitani, Y., (2009). Power oscillation suppression by robust SMES in power system with large wind power penetration. *Physica C: Superconductivity and its Applications*, Vol. 469, No. 1, Jan. 2009, Pages 44-51.
 3. Dechanupaprittha, S., Mitani, Y., Watanabe, M., Hongesombut, K., and Ngamroo, I., (2008). A practical design of fuzzy SMES controller based on synchronized phasor measurement for interconnected power system. *International Journal of Emerging Electric Power Systems*, Vol. 9, No. 3, Apr. 2008. (e-Journal) *Also presented at the *2007 International Power Engineering Conference (IPEC2007)*, 3 – 6 Dec. 2007, Singapore.
 4. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I., (2007). Stabilization of tie-line power flow by robust SMES controller for interconnected power system with wind farms. *IEEE Transactions on Applied Superconductivity*, Vol. 17, No. 2, pp. 2365-2368. (Special Issue ASC 2006). *Also presented at the *2006 Applied Superconductivity Conference (ASC 2006)*, 27 Aug. – 1 Sep. 2006, Seattle, WA, USA.
 5. Ngamroo, I., Taeratanachai, C., Dechanupaprittha, S., and Mitani, Y. (2007). Enhancement of load frequency stabilization effect of superconducting magnetic energy storage by static synchronous series compensator based on H_{∞} control. *Energy Conversion & Management*, Vol. 48, No. 4, pp. 1302-1312.
 6. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I. (2006). A heuristic-based design of robust SMES controller taking system uncertainties into consideration. *IEEJ Transactions on Electrical and Electronic Engineering*, Vol. 1, No. 3, pp. 255-267.
 7. Dechanupaprittha, S., Hongesombut, K., Mitani, Y., and Ngamroo, I., (2006). Frequency Stabilization of Interconnected Power System with Wind Farms by Controllable Distributed Generator. *Journal of the Institution of Engineers, Singapore Mechanical and Electrical Engineering*, Special Issue IPEC 2005. (e-Journal) *Also presented at the *2005 International Power Engineering Conference (IPEC2005)*, 29 Nov.-2 Dec. 2005, Singapore.
 8. Ngamroo, I., Tippayachai, J., and Dechanupaprittha, S. (2006). Robust decentralised frequency stabilisers design of static synchronous series compensators by taking system uncertainties into consideration. *International Journal of Electrical Power & Energy Systems*, Vol. 28, No. 8, pp. 513-524.
 9. Ngamroo, I. and Dechanupaprittha, S. (2005). Robust decentralized design of power system stabilizers taking into consideration system uncertainties. *Optimal Control Applications and Methods*, Vol. 26, No. 1, pp. 35-53.
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10. Ongsakul, W., Dechanupaprittha, S., and Ngamroo, I., (2004). Parallel tabu search algorithm for constrained economic dispatch. *IEE Proceeding-Generation, Transmission and Distribution*, Vol. 151, No. 2, pp. 157-166.
 11. Ongsakul, W., Dechanupaprittha, S., and Ngamroo, I., (2004). Constrained economic dispatch by deterministic tabu search approach. *European Transactions on Electrical Power*, Vol. 14, No. 6, pp. 377-391.
 12. Ngamroo, I. and Dechanupaprittha, S. (2002). Design of robust H_∞ power system stabilizer using normalized coprime factorization. *ASEAN Journal on Science and Technology for Development*, vol. 19, no. 2, pp. 85-96.

Technical Conferences (International) with peer review

1. Dechanupaprittha, S., Li, C., Watanabe, M., Mitani, Y., Hongesombut, K., and Ngamroo, I., (2008). A practical approach to tuning of SMES controller based on synchronized phasor measurements for interconnected power system with wind farms. In *Proceeding of the 2008 International Conference on Sustainable Energy Technologies (ICSET2008)*, 24 – 27 Nov. 2008, Singapore. (CDROM)
 2. Dechanupaprittha, S., Sakamoto, N., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I., (2008). Design and analysis of robust SMES controller for stability enhancement of interconnected power system taking coil size into consideration. Presented at *the 2008 Applied Superconductivity Conference (ASC 2008)*, 17 – 22 Aug. 2008, Chicago, IL, USA.
 3. Dechanupaprittha, S., Mitani, Y., Watanabe, M., Hongesombut, K., and Ngamroo, I., (2007). A practical design of fuzzy SMES controller based on synchronized phasor measurement for interconnected power system. In *Proceeding of the 2007 International Power Engineering Conference (IPEC2007)*, 3 – 6 Dec. 2007, Singapore. (CDROM)
 4. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I., (2007). Design of SMES controller for improving stabilization of interconnected power system based on synchronized phasor measurement. In *Proceedings of 2007 IEEE Lausanne PowerTech*, 1-5 Jul. 2007, Lausanne, Switzerland. (CDROM)
 5. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I. (2007). Practical design of SMES controller for improving power system stability based on wide area synchronized phasor measurement. In *Proceedings of the 3rd IASTED Asian Conference on Power and Energy Systems (AsiaPES2007)*, 2-4 Apr. 2007, Phuket, Thailand.
 6. Higuma, K., Dechanupaprittha, S., Morimoto, H., Watanabe, M., Mitani, Y., and Ngamroo, I. (2007). Test results of evaluating eigen-characteristics of interarea power swing mode derived from PMU data in Thailand system. In *Proceedings of the 3rd IASTED Asian Conference on Power and Energy Systems (AsiaPES2007)*, 2-4 Apr. 2007, Phuket, Thailand.
 7. Ngamroo, I., Kunakorn, A., Leelajindakrirerk, M., Mitani, Y., Dechanupaprittha, S., Watanabe, M., Jintakosonwit, P., Hashikuchi, T., Ota, Y., Ukai, H., Sakulrat, J., Sode-Yome, A., and Tanasaksiri, T. (2007). Analysis of power system event using synchronized PMUs in Thailand power network. In *Proceedings of the 3rd IASTED Asian Conference on Power and Energy Systems (AsiaPES2007)*, 2-4 Apr. 2007, Phuket, Thailand.
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8. Dechanupaprittha, S., Mitani, Y., Watanabe, M., Hongesombut, K., and Ngamroo, I. (2006). A heuristic-based design of fuzzy SMES controller for stabilization of interconnected power system. In *Proceedings of the 17th IEE International Conference on Advances in Power System Control, Operation and Management (APSCOM 2006)*, 31 Oct. – 2 Nov. 2006, Hong Kong.
 9. Ngamroo, I., Mitani, Y., Dechanupaprittha, S., Hongesombut, K., Jintakosonwit, P., Ota, Y., Ukai, H., Sakulrat, J., Sode-yome, A., and Watanabe, M., (2006). Detection of power system oscillations using synchronized phasor measurement units through home power outlets. In *Proceedings of the 17th IEE International Conference on Advances in Power System Control, Operation and Management (APSCOM 2006)*, 31 Oct. – 2 Nov. 2006, Hong Kong.
 10. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I., (2006). Stabilization of tie-line power flow by robust SMES controller for interconnected power system with wind farms. Presented at *the 2006 Applied Superconductivity Conference (ASC 2006)*, 27 Aug. – 1 Sep. 2005, Seattle, WA, USA.
 11. Dechanupaprittha, S., Hongesombut, K., Mitani, Y., and Ngamroo, I., (2005). Frequency Stabilization of Interconnected Power System with Wind Farms by Controllable Distributed Generator. In *Proceedings of the 7th International Power Engineering Conference (IPEC2005)*, 29 Nov.-2 Dec. 2005, Singapore. (CDROM). *Also selected to appear in the *Journal of the Institute of Engineers*, Singapore (Special Issue IPEC 2005)
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 13. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I., (2005). Design of robust SMES controller in a multimachine power system by using hybrid TS/EP. In *Proceedings of the 15th Power Systems Computation Conference (PSCC'05)*, 22-26 Aug. 2005, Liege, Belgium. (CDROM)
 14. Dechanupaprittha, S., Ngamroo, I., and Mitani, Y., (2005). Decentralized design of robust power system stabilizers considering system uncertainties. In *Proceedings of 2005 IEEE St.Petersburg PowerTech*, 27-30 Jun. 2005, St.Petersburg, Russia. (CDROM)
 15. Dechanupaprittha, S., Mitani, Y., and Ngamroo, I., (2005). Coordinated design of robust PSS and SVC damping controller in a multimachine power system. In *Proceedings of 2005 IASTED International Conference on Energy and Power Systems (EPS2005)*, 18-20 Apr. 2005, Krabi, Thailand. (CDROM)
 16. Hongesombut, K., Mitani, Y., Dechanupaprittha, S., Ngamroo, I., Pasupa, K., and Tippayachai, J., (2004). Power system stabilizer tuning based on multiobjective design using hierarchical and parallel micro genetic algorithm. In *Proceedings of 2004 International Conference on Power System Technology (PowerCon2004)*, 21-24 Nov. 2004, Singapore. (CDROM)
 17. Dechanupaprittha, S., Ngamroo, I., Pasupa, K., Tippayachai, J., Hongesombut, K., and Mitani, Y., (2004). New heuristic-based design of robust power system stabilizers. In *Proceedings of 2004 International Conference on Power System*
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18. Dechanupaprittha, S., Patanapakdee, A., and Ngamroo, I., (2003). An hvdc-based controller design for stabilization of frequency oscillation. In *Proceedings of 2003 IEEE International Symposium on Circuits and Systems (ISCAS'2003)*, 25-28 May 2003, Bangkok, Thailand, vol. 3, pp. 379-382.
19. Dechanupaprittha, S., and Ngamroo, I., (2002). Design of robust power system stabilizers in a multimachine power system using tabu search algorithm. In *Proceedings of 2002 IEEE International Conference on Industrial Technology (ICIT'2002)*, 11-14 Dec. 2002, Bangkok, Thailand, vol. 1, pp. 291-296.
20. Dechanupaprittha, S., and Ngamroo, I., (2002). A tabu search algorithm to optimal weight selection in design of robust H_∞ power system stabilizer. In *Proceedings of 2002 International Technical Conference on Circuits/Systems, Computers, and Communications (ITC-CSCC'2002)*, 16-19 Jul. 2002, Phuket, Thailand, vol. 1, pp. 486-489.
21. Ongsakul, W., Dechanupaprittha, S., and Ngamroo, I., (2001). Tabu search algorithm for constrained economic dispatch. In *Proceedings of 2001 International Conference on Power System (ICPS'2001)*, 3-5 Sep. 2001, Wuhan, China, pp. 428-433.

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1. Dechanupaprittha, S. and Mitani, Y. (2009). Application of synchronized phasor measurement to controller design of distributed energy resources in interconnected power system. In *Proceedings of the 2009 annual meeting of IEEJ*, 17-19 Mar. 2009, Sapporo, Japan. (電気学会全国大会 CDROM)
 2. Dechanupaprittha, S., Watanabe, M., Mitani, Y., Hongesombut, K., and Ngamroo, I., (2008). Metaheuristic-based controller design of distributed energy resources for stabilization of interconnected power system based on synchronized phasor measurements. Presented at the *IEEJ-EIT Joint Symposium on Advanced Technology in Power Systems*, 4-5 Nov. 2008, Bangkok, Thailand. (CDROM)
 3. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I., (2007). A practical design of power system damping controller for stability enhancement of interconnected power system based on synchronized phasor measurements. Presented at the *IEEJ-EIT Joint Symposium on Advanced Technology in Power Systems*, 19-20 Nov. 2007, Bangkok, Thailand. (CDROM)
 4. Dechanupaprittha, S., Watanabe, M., Mitani, Y., Hongesombut, K., and Ngamroo, I. (2006). Stabilization of interconnected power system with wind farms by robust SMES controller. (Paper 1). In *Proceedings of the 17th Annual Conference of Power & Energy Society, IEEJ*, 13-15 Sep. 2006, Okinawa, Japan. (電気学会 B-部門大会 CDROM)
 5. Dechanupaprittha, S. and Mitani, Y. (2006). A heuristic-based design of SMES controller with improvement of SMES output energy. In *Proceedings of the 2006 annual meeting of IEEJ*, 15-17 Mar. 2006, Yokohama, Japan. (電気学会全国大会 CDROM)
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6. Ngamroo, I., Jintakosonwit, P., Sakulrat, J., Dechanupaprittha, S., Hongesombut, K., Mitani, Y., Ota, Y., Ukai, H., and Sode-yome, A. (2005). Monitoring Power System Oscillations based on Phase Measurement Units from Demand Side Outlets Developed in Thailand Power System. In *Proceedings of the 28th Electrical Engineering Conference (EECON-28)*, 20-21 Oct. 2005, Phuket, Thailand.
 7. Dechanupaprittha, S., Hongesombut, K., Watanabe, M., Mitani, Y., and Ngamroo, I. (2005). Design of robust SMES controller by using hybrid TS/EP. (Paper 1). In *Proceedings of the 16th Annual Conference of Power & Energy Society, IEEJ*, 10-12 Aug. 2005, Osaka, Japan. (電気学会 B-部門大会 CDROM)
 8. Ngamroo, I. and Dechanupaprittha, S. (2001). A robust power system stabilizer based H_∞ control theory using normalized coprime factorization approach. In *Proceedings of the 24th Electrical Engineering Conference (EECON-24)*, 22-23 Nov. 2001, Bangkok, Thailand. Vol. 1, pp. 169-174.
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