

CURRICULUM VITAE

of

Dr. Boddeti Kalyan Kumar

Dr. B. Kalyan Kumar,
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Research Interests

- Power system modeling
- Power system dynamics
- Flexible AC transmission devices (FACTS) modeling and control
- Control coordination of damping controllers
- Application of Fuzzy and Artificial Neural Networks to power systems

Educational Qualifications

Doctor of Philosophy (Ph.D.): from Department of Electrical Engineering, Indian Institute of Technology, Kanpur, India. Year of completion: April 2007.

Masters of Technology (M. Tech.): In Power Systems and Control, from Department of Electrical Engineering, Indian Institute of Technology, Kanpur, India. Year of completion: February 2003.

Bachelor of Technology (B. Tech): In Electrical and Electronics Engineering, from Department of Electrical Engineering, Jawaharlal Nehru Technological University, Hyderabad, India. Year of completion: May 2001.

Dissertation

Ph. D. Thesis: Design of nonlinear adaptive power system stabilizers (PSS) and flexible AC transmission systems (FACTS) supplementary controllers, utilizing direct nonlinear feedback linearization along with linear quadratic regulator with prescribed degree of stability and Sugeno-type adaptive neuro-fuzzy inference systems (ANFIS).

M. Tech. Thesis: Control coordination of power system stabilizers (PSS) and supplementary controllers to static var compensator (SVC) and thyristor controlled series compensator (TCSC) parameters, using pseudo-decentralization.

Work Experience

- Working as Assistant Professor in IIT Madras form May 2007.
- Worked in Crompton Greaves, Nasik, from March 2003 to May 2003 as Executive Engineer
- Worked as Project Associate in the Department of Electrical Engineering, IIT Kanpur form May 2003 to July 2003.

Thesis Supervised

- Ph.D. - one (ongoing)
- M.S. - four (ongoing)

Ongoing Project

Project Title: Improvement of Power Quality through UPQC by using Different Algorithms and Switching Strategies.

Funding agency: Indian Institute of Technology Madras.

Awards/Prizes

- Cash award for best paper, in “Power Fest 2002”, held at National Institute of Technology, Kurukshetra.
- Cash award for the papers published in IEE proc. Part ‘c’ Generation, Transmission and Distribution and Electric Power Systems Research Journals, awarded by Dean Resources Planning and Generation, IIT Kanpur.

List of Publications

REFEREED JOURNALS:

1. B. Kalyan Kumar, Mahesh Kumar, P. Harshavardhana and Bhaskar srinivas, ”PSO based feedback controller design of DSTATCOM for load compensation with non-stiff sources" to be published in International Journal of Power Electronics (IJPELEC).
2. B. Kalyan Kumar, S. N. Singh and S. C. Srivastava, “Placement of FACTS controllers using modal controllability indices to damp out power system oscillations”, IET Generation Transmission and Distribution, vol. 1, Issue 2, March 2007, pp. 209-217.
3. B. Kalyan Kumar, S. N. Singh and S.C. Srivastava, “A decentralized nonlinear feedback controller with prescribed degree of stability for damping oscillations”, Electric Power Systems Research, vol. 77, March 2007, pp. 204-211.
4. B. Kalyan Kumar, S.N. Singh and S. C. Srivastava, “Optimal control strategy using pseudo-decentralization for coordination of power system stabilizer and FACTS in a

multi-machine system”, International Energy Journal, Special Issue: FACTS Applications and Stability and Dynamics, vol. 6, No. 1, Part 1, June 2005, pp. 1-13.

REFEREED CONFERENCES:

1. B. Kalyan Kumar, P. Harshavardhana and Mahesh Kumar, “Load compensation with non-stiff source using various control strategies”, International conference on Power System Analysis, Control and Optimization (PSACO), Andhra university, Visakhapatnam, Indian, March 13th – 15th, 2008.
2. B. Kalyan Kumar, S. N. Singh and S.C. Srivastava, “A decentralized nonlinear feedback controller for SVC with prescribed degree of stability for damping power system oscillations,” International conference on advanced power system operation control and management (APSCOM-2006), Hong Kong, 30th October – 2nd November 2006.
3. S.P. Panda, B. Kalyan Kumar, and S.N. Singh, “Fuzzy based power system stabilizer tuning of a nuclear power station,” International conference on challenges and strategies for sustainable energy and efficiency and environment, U.P.T.U. Lucknow, 2006, pp: 390-401.
4. B. Kalyan Kumar, S.N. Singh and S.C. Srivastava, “A modal controllability index for optimal placement of TCSC to damp inter-area oscillations”, Power Engineering Society General Meeting 2005, IEEE, June 12-16, 2005, pp: 1664-1668.
5. B. Kalyan Kumar, S.C. Srivastava, “Coordination of Power system stabilizers using Optimal Control Feedback with Pseudo-Decentralization”, National Power System Conference 2004, pp: 414-418.
6. B. Kalyan Kumar, S. N. Singh and S.C. Srivastava, “Coordination of power system stabilizers, FACTS and HVDC controllers for damping oscillations in multi-machine system”, International conference on power systems, Katmandu, Nepal, 2004, Vol. 2, pp: 421-426.

Conferences attended

1. International conference on advanced power system operation control and management (APSCOM-2006), Hong Kong, November 2006.
2. National power system conference (NPSC), IIT Madras, India, December 2004.
3. International conference on power systems (ICPS), Kathmandu, Nepal, November 2004
4. International conference on ‘Electric Supply Industry in Transition: Issues and Prospects for Asia’ at Asian Institute of Technology, Bangkok Thailand in January 2004

Personal Information

Father’s name:	B. K. Eswara Rao
Date of Birth:	30 th May, 1980
Sex:	Male
Marital Status:	Married
Nationality:	Indian