CURRICULUM VITAE

Arun Ghosh

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Permanent Address

Vill: Tajpur P.O: Tajpur Purakona Dist: Bankura West Bengal 722208 India

Research Areas

Broad Area: Control Theory and Applications Specific areas: Multivariable Control Periodic Control Robust Control

Educational Degrees

PhD	Department of Electrical Engineering, IIT Kharagpur, 2010 Thesis: Decoupled Compensation of MIMO Plants
MEE	Department of Electrical Engineering, Jadavpur University (JU), Kolkata, 2004, 78.3 %
B.E (Hons)	Department of Electrical Engineering, National Institute of Technology (NIT) Durgapur (Erstwhile Regional Engineering College (REC), Durgapur), 2002, 75.9 %

Higher Secondary	Bankura Zilla School, Bankura, 1997, 80.4 %
Secondary	Tajpur High School, Bankura, 1995, 78.88 %

Present Position

Assistant Professor Department of Electrical Engineering, IIT Kharagpur, West Bengal (December 2014 onwards)

Professional Experience

Assistant Professor	School of Electrical Sciences, IIT Bhubaneswar, Odisha (April 2011- December 2014)
Assistant Professor	Department of Electrical Engineering, NIT Rourkela, Odisha (December 2009-April 2011)

Courses Taught

Optimal control, Non-linear control, Estimation of signals and systems, Electrical Machines (at NIT Rourkela)

Instrumentation and Control Systems Engineering, Advanced Control, Electrical Technology, Electromagnetic Field Theory (at IIT Bhubaneswar)

Control Theory, Robust Control (at IIT Kharagpur)

Electrical Technology lab, Measurement and Instrumentation lab, Control System lab, Basic Electronics lab

List of Journal Publications

- 1. Ghosh, A., & Das, S. K. (2009). Open-loop decoupling of MIMO plants. *IEEE transactions* on automatic control, 54(8), 1977-1981.
- 2. Ghosh, A., & Das, S. K. (2010). Periodic compensation of a class of decentralized systems with fixed modes. *Automatica*, *46*(9), 1563-1567.
- 3. Ghosh, A., Krishnan, T. R., & Subudhi, B. (2012). Robust proportional-integral-derivative compensation of an inverted cart-pendulum system: an experimental study. *Control Theory & Applications, IET, 6*(8), 1145-1152.

- 4. Ghosh, A., & Das, S. K. (2012). Decoupled periodic compensation for multi-channel output gain margin improvement of continuous-time MIMO plants. *Control Theory & Applications, IET, 6*(11), 1735-1740.
- 5. Pradhan, J. K., & Ghosh, A. (2013). Design and implementation of decoupled compensation for a twin rotor multiple-input and multiple-output system. *Control Theory* & *Applications, IET, 7*(2), 282-289.
- 6. Ghosh, A. (2013). Decentralized simultaneous stabilization of a class of two MIMO systems using a continuous-time periodic controller. *Automatica*, *49*(5), 1515-1520.
- 7. Ghosh, A., Krishnan, T. R., Tejaswy, P., Mandal, A., Pradhan, J. K., & Ranasingh, S. (2014). Design and implementation of a 2-DOF PID compensation for magnetic levitation systems. *ISA transactions*, *53*(4), 1216-1222.
- 8. Ghosh, A., Malla, S. G., & Bhende, C. N. (2015). Small-signal modelling and control of photovoltaic based water pumping system. *ISA transactions*, *57*, 382-389.
- 9. Pradhan, J. K., & Ghosh, A. (2015). Multi-input and multi-output proportional-integralderivative controller design via linear quadratic regulator-linear matrix inequality approach. *Control Theory & Applications, IET, 9*(14), 2140-2145.

Sponsored Projects

- 1. "Robust 2-DoF PID compensation of magnetic levitation system", In-house project, SRIC, IIT Bhubaneswar, PI (Completed)
- 2. "Decoupled LTI and periodic compensation of quadruple-tank process: Experimental studies", DST-SERB Fast track project, PI (Ongoing)
- 3. "Robust multivariable PID control of high AoA missiles", AR&DB, DRDO, PI (Ongoing)

Thesis Guided

PhD thesis: 02 (ongoing, one at IIT Bhubaneswar and one at IIT Kharagpur)

Master's thesis: 03 (completed)

B.Tech Thesis: 08 (completed)

Workshop/Short term course organized

Short term course on Advances in PID Control: Theory and Applications, IIT Bhubaneswar, July 11-12, 2014

Reviewers of Journals

- 1. IEEE Transactions on Automatic Control
- 2. Automatica
- 3. IET Control Theory and Applications
- 4. International Journal of Control
- 5. ISA Transactions
- 6. Journal of Franklin Institute
- 7. Journal of Systems and Control Engineering (IMechE-part I)

Awards

Certificate for merit position in the district level, Higher Secondary Examination, 1997

Certificate for merit position in B.E (H) in Electrical Engineering, NIT Durgapur, 2002

Personal

Date of birth: February 14, 1980 Place of birth: Tajpur, Bankura, West Bengal, India Spouse: Mousumi Daughter: Srijita