Steven Low   Curriculum Vitae

CMS, EE, Caltech, Pasadena, CA   `slow@caltech.edu, netlab.caltech.edu`
IEEE Fellow (2008)

Professional Preparation

Cornell University, Ithaca, NY	Electrical Engineering	BS	1987
Univ. of California, Berkeley	Electrical Engineering	MS	1989
Univ. of California, Berkeley	Electrical Engineering	PhD	1992

Appointments

2000 –	Professor (2006 –), Assoc. Professor (2000 – 2006), CS and EE, Caltech
2006 – 2008	Co-founder & CEO (Chairman, 2006 – 2012), FastSoft, Inc., Pasadena, CA
1996 – 2000	Senior Lecturer EEE, University of Melbourne, Australia.
1992 – 1996	Member of technical Staff, AT&T Bell Labs, Murray Hill, NJ

Publications

Five most related to proposed project:

1 Enrique Mallada, Changhong Zhao and S. H. Low. Optimal load-side control for frequency regulation in smart grids, *IEEE Trans. on Automatic Control*, 2017

2 Qiuyu Peng and S. H. Low. Distributed optimal power flow algorithm for radial networks, I: balanced single phase case, *IEEE Trans. on Smart Grid*, 2016

3 S. Bose, D. Gayme, K. M. Chandy and S. H. Low. Quadratically constrained quadratic programs on acyclic graphs with application to power flow, *IEEE Trans. on Control of Network Systems*, 2015

4 S. H. Low. Convex relaxation of optimal power flow (parts I, II), *IEEE Trans. Control of Network Systems*, Part I: 1(1):15-27, March 2014; Part II: 1(2):177-189, June 2014

5 M. Farivar and S. H. Low. Branch flow model: relaxation and convexification (parts I, II), *IEEE Trans. on Power Systems*, 28(3):2554-2572, August 2013

Five other significant publications:

1 Mung Chiang, Steven H. Low, A. Robert Calderbank and John C. Doyle (2007). Layering as optimization decomposition: a mathematical theory of network architectures. *Proceedings of the IEEE,* 95(1):255–312. (Google: 1,270 (Feb 2017))

2 D. X. Wei, C. Jin, S. H. Low and S. Hegde (2006). FAST TCP: motivation, architecture, algorithms, performance. *IEEE/ACM Trans. on Networking,* 14(6):1246-1259. [Google: 1,610 (Infocom+ToN, Feb 2017)]

3 S. H. Low (2003). A Duality Model of TCP and Queue Management Algorithms. *IEEE/ACM Trans. On Networking,* 11(4):525-536. [Google: 820 (Feb 2017)]

4 Athuraliya, S. Low, S.H. Li, V.H. Qinghe Yin (2001). REM: active queue management. *IEEE Network,* 15(3):48-53. [Google: 1,390 (Feb 2017)]

5 S. H. Low and D. E. Lapsley (1999). Optimization Flow Control, I: Basic Algorithm and Convergence. *IEEE/ACM Trans. on Networking*, 7(6):861-874. [Google: 2,110 (Feb 2017)]

Synergistic Activities

1. **Current Editorial**

   - Senior Editor, *IEEE Trans. Control of Network Systems*, 2014 – ;
   - Senior Editor, Steering Committee (Member 1/2013 – 1/2017, Chair 1/2015 – 1/2017), *IEEE Trans. Network Science & Engieering*, 2014 – ;
   - Editorial Board Member, *Elsevier Journal on Sustainable Energy, Grids and Networks*, 2014 –;
   - Editor, *NOW, Foundations and Trends in Energy Systems*, 2014 – ;
   - Editor, *NOW, Foundations and Trends in Networking*, 2004 – ;

   Past Editorial

   - Senior Editor, *IEEE Journal on Selected Areas in Communications*, 2004 – 2014;
   - Associate Editor, *IEEE Trans. on Automatic Control*, 2010;
   - Associate Editor, *ACM Computing Surveys*, 2004 – 2010;
   - Associate Editor *Computer Networks Journal*, 2003 – 2005;
   - Associate Editor, *IEEE/ACM Trans. on Networking*, 1997 – 2006.

2. **Entrepreneurial Activity**

   - Co-founder CEO, FastSoft Inc., 2006 – 2008 (Chairman 2006 – 2012)
     FastSoft technology has been accelerating more than 1TB of Internet traffic every second since 2014
   - Co-founder, PowerFlex Systems, 2016 –

3. **Advisory Board**

   - Tech. Advisory Board, Southern California Edison, 2010 – 2013;
   - Resnick Sustainability Institute Advisory Council, 2012 – ;
   - Networking and Information Technology Technical Advisory Group for the US President's Council of Advisors on Science and Technology (PCAST), 2006 – 2007