

LIST OF PUBLICATIONS: Prof Subhrakanti Dey

Scholarly Book Chapters

- [B1] E. Nekouei, H. Inaltekin and S. Dey, “Capacity Scaling Limits of Cognitive Multiple Access Networks,” *Mechanisms and Games for Dynamic Spectrum Access*, (Editors: T. Alpcan, H. Boche, M. L. Honig and H.V. Poor), pp. 304-332, Cambridge University Press, Cambridge, UK, 2013.

Scholarly Journal Papers

Papers published and in press

- [J1] S. Dey, V. Krishnamurthy and T. Salmon-Leagagneur, “Estimation of Markov Modulated Time-series via EM Algorithm”, *IEEE Signal Processing Letters*, vol. 1, pp. 153-155, October 1994.
- [J2] V. Krishnamurthy, S. Dey and J. P. LeBlanc, “Blind Equalization of IIR Channels using Hidden Markov Models and Extended Least Squares”, *IEEE Transaction on Signal Processing*, vol.43, No. 12, pp. 2994-3006, December 1995.
- [J3] S. Dey and J. B. Moore, “Risk-sensitive filtering and smoothing for Hidden Markov Models,” *Systems and Control Letters*, Vol. 25, No. 5, pp. 361-366, August 1995.
- [J4] J. B. Moore, R.J. Elliott and S. Dey, “Risk-sensitive Generalizations of Minimum Variance Estimation and Control” (summary), *Journal of Mathematical Systems, Estimation and Control*, vol. 7, no. 1, pp. 123-126, 1997.
- [J5] R. J. Elliott, J. B. Moore and S. Dey, “Risk-sensitive maximum likelihood sequence estimation,” *IEEE Transactions on Circuits and Systems Part I*, vol. 43, no.9, pp. 805-810, September 1996.
- [J6] S. Dey and J. B. Moore, “Risk-sensitive filtering and smoothing via Reference Probability Methods”, *IEEE Trans. on Automatic Control*, vol. 42, no. 11, pp. 1587-1591, November 1997.
- [J7] S. Dey and J. B. Moore, “Risk-sensitive dual control,” *International Journal of Robust and Nonlinear Control*, volume 7, no: 12, pp. 1047-1056, December 1997.
- [J8] C. D. Charalambous, S. Dey and R. J. Elliott, “New finite-dimensional risk-sensitive filters: small noise limits”, *IEEE Trans. on Automatic Control*, vol. 43, no. 10, pp. 1424-1429, October 1998.
- [J9] Louis Shue, B. D. O. Anderson and S. Dey, “Exponential Stability of filters and smoothers for hidden Markov models,” *IEEE Transactions on Signal Processing*, vol. 46, no. 8, pp. 2180-2194, August 1998.
- [J10] J. S. Baras and S. Dey, “Combined compression and classification with learning vector quantization”, *IEEE Transactions on Information Theory*, vol. 45, no. 6, pp. 1911-1920, September 1999.
- [J11] S. Dey and J. B. Moore, “Finite-dimensional risk-sensitive filters and smoothers for nonlinear discrete-time systems, ” *IEEE Transactions on Automatic Control*, vol. 44, no. 6 , pp. 1234-1239, June 1999.

- [J12] R. Jana and S. Dey, "Change detection in teletraffic models," *IEEE Transactions on Signal Processing*, vol. 48, no. 3, pp. 846-853, March 2000.
- [J13] S. Dey and C. D. Charalambous, "On asymptotic stability of continuous -time risk-sensitive filters with respect to initial conditions," *Systems and Control Letters*, vol. 41, no. 1, pp. 9-18, 2000.
- [J14] L. Shue, S. Dey, B.D.O. Anderson and F. De Bruyne, "On State-estimation of a 2-state hidden Markov model with quantisation," *IEEE Transactions on Signal Processing*, vol 49, no. 1, pp. 202-208, January 2001.
- [J15] S. Dey, "Reduced-complexity filtering for partially observed nearly completely decomposable Markov chains", *IEEE Transactions on Signal Processing*, vol. 48, no. 12, pp. 3334-3344, December 2000.
- [J16] R. Jana and S. Dey, "3Gwireless Capacity Optimization for Widely Spaced Antenna Arrays," *IEEE Personal Communications*, vol. 7, no. 6, pp. 32-35, December 2000.
- [J17] S. Dey and C. D. Charalambous, "Discrete-time risk-sensitive filters for non-Gaussian initial conditions and their ergodicity properties", *Asian Journal of Control*, vol. 3, no.4, pp. 262-271, December 2001.
- [J18] L. Shue and S. Dey, "Complexity reduction in fixed lag smoothing for hidden Markov models," *IEEE Transactions on Signal Processing*, vol. 50, no. 5, pp. 1124-1132, May 2002.
- [J19] G. Yin and S. Dey, "Weak convergence of hybrid filtering problems involving nearly completely decomposable hidden Markov chains," *SIAM Journal on Control & Optimization*, vol. 41, no. 8, pp. 1820-1842, 2003.
- [J20] V. Krishnamurthy and S. Dey, "Reduced-complexity spatio-temporal image-based tracking filters for maneuvering targets", *IEEE Transactions on Aerospace and Electronic Systems*, vol.39, no: 4, pp. 1277-1291, October 2003.
- [J21] S. Dey and I. M. Mareels, "Reduced complexity estimation for large-scale hidden Markov models," *IEEE Transactions on Signal Processing*, vol. 52, no. 5, pp. 1242-1249, May 2004.
- [J22] J. Papandriopoulos, J.S. Evans and S. Dey, "Optimal power control for Rayleigh-faded multiuser systems with outage constraints," *IEEE Transactions on Wireless Communications*, volume 4, no. 6, pp. 2705-2715, November 2005.
- [J23] S. Dey and J.S. Evans, "Optimal power control over multiple time-scale fading channels with service outage constraints," *IEEE Transactions on Communications*, vol. 53, no.4, pp. 708-717, April 2005.
- [J24] T. Alpcan, T. Basar and S. Dey, "A Power Control Game Based on Outage Probabilities for Multicell Wireless Data Networks", *IEEE Transactions on Wireless Communications*, vol. 5, no. 4, pp. 890-899, April 2006.
- [J25] M. Huang and S. Dey, "Dynamic Quantizer Design for Hidden Markov State Estimation via Multiple Sensors with Fusion Centre Feedback", *IEEE Transactions on Signal Processing*, vol. 54, no. 8, pp. 2887-2896, August 2006.
- [J26] J. Papandriopoulos, J.S. Evans and S. Dey, "Outage-based Optimal Power Control for Generalized Multiuser Fading Channels," *IEEE Transactions on Communications*, Vol. 54, no. 4, pp. 693-703, April 2006.

- [J27] A.S. Leong, S. Dey and J.S. Evans, “Probability of error analysis for Hidden Markov Model filtering with random packet losses”, *IEEE Transactions on Signal Processing*, Vol. 55, no.3, pp. 809-821, March 2007.
- [J28] M. Huang and S. Dey, “Stability of Kalman filtering with Markovian packet losses”, *Automatica*, vol. 43, no. 4, pp. 598-607, April 2007.
- [J29] S. Dey and J.S. Evans, “Outage capacity and optimal power allocation for multiple time-scale parallel fading channels”, *IEEE Transactions on Wireless Communications*, volume 6, no. 7, pp. 2369-2373, July 2007.
- [J30] M. Huang and S. Dey, “Dynamic quantization for multi-sensor estimation over bandlimited fading channels,” *IEEE Transactions on Signal Processing*, volume 55, no. 9, pp. 4696-4702, September 2007.
- [J31] A.S.C. Leong, S. Dey and J.S. Evans, “Error exponents for Neyman-Pearson detection of Markov chains in noise,” *IEEE Transactions on Signal Processing*, vol. 55, no. 10, pp. 5097-5103, October 2007.
- [J32] M. Huang and S. Dey, “Combined Rate and Power Allocation with Link Scheduling in Wireless Data Packet Relay Networks with Fading Channels,” *EURASIP Journal on Wireless Communications and Networking*, volume 2007, article ID 24695, 17 pages.
- [J33] J.C.F. Li, S. Dey and J.S. Evans, “Maximal lifetime rate and power allocation for wireless sensor systems with data distortion constraints,” *IEEE Transactions on Signal Processing*, volume 56, no. 5, pp. 2076-2090, May 2008.
- [J34] A.S.C. Leong, S. Dey and J.S. Evans, “On Kalman Smoothing with Random Packet Loss,” *IEEE Transactions on Signal Processing*, Vol. 56, No. 7, pp. 3346-3351, July 2008.
- [J35] K. Chakrabarty, S. Dey and M. Franceschetti, “Outage Capacity of MIMO Poisson Fading Channels,” *IEEE Transactions on Information Theory*, vol. 54, no. 11, pp. 4887-4907, November 2008.
- [J36] J. Papandriopoulos, S. Dey and J.S. Evans, “Optimal and Distributed Protocols for Cross-Layer Design of Physical and Transport Layers in MANETs,” *IEEE/ACM Transactions of Networking*, vol. 16, no. 6, pp. 1392-1405, December 2008.
- [J37] P. Minero, M. Franceschetti, S. Dey and G. Nair, “Data Rate Theorem for Stabilization over Time-Varying Feedback Channels,” *IEEE Transactions on Automatic Control*, vol. 54, no. 2, pp. 243-255, February 2009.
- [J38] N. Ghasemi and S. Dey, “A Constrained MDP Approach to Dynamic Quantizer Design for HMM State Estimation”, *IEEE Transactions on Signal Processing*, vol. 57, no. 3, pp. 1203-1209, March 2009.
- [J39] K. Chakraborty, S. dey and M. Franceschetti, “Service outage based power and rate control for Poisson fading channels,” *IEEE Transactions on Information Theory*, vol. 55, no. 5, pp. 2304-2318, May 2009.
- [J40] S. Dey, A.S.C. Leong and J.S. Evans, “Kalman Filtering with Faded Measurements,” *Automatica*, volume 45, no. 10, pp. 2223-2233, October 2009.
- [J41] J.C-F. Li and S. Dey, “Outage Minimization in Wireless Relay Networks with Delay Constraints and Causal Channel Feedback,” *European Transactions on Telecommunications*, vol. 21, pp. 251-265, 2010.

- [J42] M. Huang, S. Dey, G. Nair and J.H. Manton, “Stochastic Consensus over Noisy Networks with Markovian and Arbitrary Switches,” *Automatica*, vol. 46, no. 10, pp. 1571-1583, October 2010.
- [J43] A.S.C. Leong, S. Dey and J.S. Evans, “Asymptotics and Power Allocation for State Estimation over Fading Channels”, *IEEE Transactions on Aerospace and Electronic Systems*, vol. 47, no. 1, pp. 611-633, January 2011.
- [J44] Y.Y. He and S. Dey, “Power Allocation in Spectrum Sharing Cognitive Radio Networks with Quantized Channel Information,” *IEEE Transactions on Communications*, vol. 59, no. 6, pp. 1644-1656, June 2011.
- [J45] A.S. Leong, S. Dey, G. Nair and P. Sharma, “Power Allocation For Outage Minimization in State Estimation Over Fading Channels,” *IEEE Transactions on Signal Processing*, vol. 59, no. 7, pp. 3382–3397, July 2011.
- [J46] A.S. Leong and S. Dey, “On Scaling Laws of Diversity Schemes in Decentralized Estimation,” *IEEE Transactions on Information Theory*, vol. 57, no. 7, pp. 4740-4759, July 2011 .
- [J47] C-H. Wang and S. Dey, “Distortion Outage Minimization in Nakagami Fading Using Limited Feedback,” *EURAPSIP Journal on Advances in Signal Processing*, 2011:92 doi:10.1186/1687-6180-2011-92.
- [J48] F. Li, J.S. Evans and S. Dey, “Decision Fusion over Noncoherent Fading Multiaccess Channels,” *IEEE Transactions on Signal Processing*, vol. 59, no. 9, pp. 4367-4380, September 2011.
- [J49] C-H. Wang, A.S.C Leong and S. Dey, “Distortion Outage Minimization and Diversity Order Analysis for Coherent Multi-access,” *IEEE Transactions on Signal Processing*, vol. 59, no. 12, pp. 6144-6159, December 2011.
- [J50] E. Nekouei, H. Inaltekin and S. Dey, “Throughput scaling in cognitive multiple-access with average power and interference constraints,” *IEEE Transactions on Signal Processing*, vol. 60, no. 2, pp. 927-946, February 2012.
- [J51] Y. Y. He and S. Dey, “Throughput maximization in cognitive radio under peak interference constraints with limited feedback,” *IEEE Transactions on Vehicular Technology*, vol. 61, no. 3, pp. 1287-1305, March 2012.
- [J52] F. Li, J.S. Evans and S. Dey, “Design of Distributed Detection Schemes for Multiaccess Channels,” *IEEE Transactions on Aerospace & Electronic Systems*, vol. 48, no. 2, pp. 1552-1569, April 2012.
- [J53] N. Ghasemi and S. Dey, “Dynamic Quantization and Power Allocation for Multisensor Estimation of Hidden Markov Models,” *IEEE Transactions on Automatic Control*, vol. 57, no. 7, pp. 1641-1656, July 2012.
- [J54] D. Quevedo, A. Ahlen, A.S. Leong and S. Dey, “On Kalman Filtering over Fading Wireless Channels with Controlled Transmission Powers,” *Automatica*, vol. 48, no. 7, pp. 1306-1316, July 2012.
- [J55] A. Limmanee, S. Dey and J.S. Evans, “Service-outage Capacity Maximization in Cognitive Radio for Parallel Fading Channels,” *IEEE Transactions on Communications*, vol. 61, no. 2, pp. 507-520, February 2013.

- [J56] Y. Y. He and S. Dey, "Outage Minimization for Parallel Fading Channels with Limited Feedback," *EURASIP Journal of Wireless Communications and Networking*, 2012:352, doi:10.1186/1687-1499-2012-352.
- [J57] J.M. Scarlett, J.S. Evans and S. Dey, "Compressed Sensing with Prior Information: Information-Theoretic Limits and Practical Decoders," *IEEE Transactions on Signal Processing*, vol. 61, no. 2, pp. 427-439, February 2013.
- [J58] Y. Y. He and S. Dey, "Power Allocation for Secondary Outage Minimization in Spectrum Sharing Networks with Limited Feedback," *IEEE Transactions on Communications*, vol. 61, no.7, pp. 2648 - 2663, July 2013.
- [J59] A.S. Leong, S. Dey and G.N. Nair, "Quantized Filtering Schemes for Multi-Sensor Linear State Estimation: Stability and Performance Under High Rate Quantization," *IEEE Transactions on Signal Processing*, vol. 61, no.15, pp. 3852 - 3865, August 2013.
- [J60] Y. Y. He and S. Dey, "Throughput Maximization in Poisson Fading Channels with Limited Feedback," *IEEE Transactions on Communications*, vol. 61, no. 10, pp.4343-4356, October 2013.
- [J61] E. Nekouei, H. Inatekin and S. Dey, "Power Control and Asymptotic Throughput Analysis for the Distributed Cognitive Uplink," *IEEE Transactions on Communications*, vol. 62, no. 1, pp. 41-58, January 2014.
- [J62] A. Limmanee, S. Dey and E. Nekouei, "Optimal Power Policies and Throughput Scaling Analyses in Fading Cognitive Broadcast Channels with Primary Outage Probability Constraint," *EURASIP Journal on Wireless Communications and Networking*, 2014, 2014:35 doi:10.1186/1687-1499-2014-35.
- [J63] Y.Y He and S. Dey, "Sum Rate Maximization For Cognitive MISO Broadcast Channels: Beamforming Design and Large Systems Analysis", *IEEE Transactions on Wireless Communications*, vol. 13, no. 5, pp. 2383-2401, May 2014.
- [J64] M. Nourian, A.S.C. Leong and S. Dey, "Optimal Energy Allocation for Kalman Filtering over Packet Dropping Links with Imperfect Acknowledgments and Energy Harvesting Constraints," *IEEE Transactions on Automatic Control*, vol. 59, no. 8, pp. 2128-2143, August 2014.
- [J65] M. Nourian, A.S.C. Leong, S. Dey and D. Quevedo, "An Optimal Transmission Strategy for Kalman Filtering over Packet Dropping Links with Imperfect Acknowledgements," *IEEE Transactions on Control of Network Systems*, vol. 1, no. 3, pp. 259-271, 2014.
- [J66] S. Dey, A. Chiuso and L. Schenato, "Remote estimation with noisy measurements subject to packet loss and quantization noise," *IEEE Transactions on Control of Network Systems*, vol. 1, no. 3, pp. 204-217, 2014.
- [J67] D. Ciuonzo, P. Salvo-Rossi and S. Dey, "Massive MIMO Channel-Aware Decision Fusion," *IEEE Transactions on Signal Processing*, vol. 63, no. 3, pp. 604-619, February 2015.
- [J68] M. Nourian, S. Dey and A. Ahlén, "Distortion Minimization in Multi-Sensor Estimation with Energy Harvesting," *IEEE Journal on Selected Areas in Communications*, vol. 33, no. 3, pp. 524-539, March 2015.
- [J69] S. Knorn, S. Dey, A. Ahlén and D. Quevedo, "Distortion Minimization in Multi-Sensor Estimation Using Energy Harvesting and Energy Sharing," *IEEE Transactions on Signal Processing*, vol. 63, no. 11, pp. 2848-2863, June 2015.

- [J70] A. Shirazina and S. Dey, "Power Constrained Sparse Gaussian Linear Dimensionality Reduction over Noisy Communication Channels," *IEEE Transactions on Signal Processing*, vol. 63, no. 21, pp. 5837-5852, 2015.
- [J71] A. Shirazina, S. Dey, D. Ciuonzo and P. Salvo-Rossi, "Massive MIMO for Decentralized Estimation of a Correlated Source," *IEEE Transactions on Signal Processing*, vol. 64, no. 10, pp. 2499 - 2512, 2016.
- [J72] E. Nekouei, H. Inaltekin and S. Dey, "Throughput Analysis for the Cognitive Uplink Under Limited Primary Cooperation," *IEEE Transactions on Communications*, vol. 64, no. 7, pp. 2780-2796, July 2016.
- [J73] Y. Li, F. Zhang, D.E. Quevedo, V.K. Lau, S. Dey and L. Shi, "Power Control of an Energy Harvesting Sensor for Remote State Estimation," *IEEE Transactions on Automatic Control*, vol. 62, no. 1, pp. 277-290, Jan. 2017.
- [J74] E. Kung, S. Dey and L. Shi, "The Performance and Limitations of ϵ -Stealthy Attacks on Higher Order Systems," *IEEE Transactions on Automatic Control*, vol. 62, no. 2, pp. 941-947, Feb. 2017.
- [J75] Y. Li, D.E. Quevedo, S. Dey and L. Shi, "A Game-theoretic Approach to Fake-Acknowledgment Attack on Cyber-physical Systems," *IEEE Transactions on Signal and Information Processing on Networks*, vol. 3, no. 1, pp. 1-11, 2017.
- [J76] X. Guo, A.S. Leong and S. Dey, "Distortion Outage Minimization in Distributed Estimation with Estimation Secrecy Outage Constraints," *IEEE Transactions on Signal and Information Processing on Networks*, vol. 3, no. 1, pp. 12-24, 2017.
- [J77] A.S. Leong, S. Dey and D. Quevedo, "Sensor Scheduling in Variance Based Event Triggered Estimation with Packet Drops," *IEEE Transactions on Automatic Control*, vol. 62, no. 4, pp. 1880-1895, April 2017.
- [J78] Y. Li, D. Quevedo, S. Dey and L. Shi, "SINR-based DoS Attack on Remote State Estimation: A Game-theoretic Approach," *IEEE Transactions on Control of Network Systems*, in press, (accepted March 2016).
- [J79] X. Guo, A. S. Leong and S. Dey, "Estimation in Wireless Sensor Networks with Security Constraints," *IEEE Transactions on Aerospace and Electronic Systems*, in press, (accepted July 2016).
- [J80] S. Dey, A. Chiuso and L. Schenato, "Feedback Control over lossy SNR-limited channels: linear encoder-decoder-controller design," *IEEE Transactions on Automatic Control*, in press, (accepted February 2017).
- [J81] S. Knorn and S. Dey, "Optimal energy allocation for linear control with packet loss under energy harvesting constraints," *Automatica*, vol. 77, pp. 259-267, March 2017.
- [J82] K. Ding, Y. Li, D. Quevedo, S. Dey and L. Shi, "A Multi-channel Transmission Schedule for Remote State Estimation under DoS Attacks," *Automatica*, vol. 78, pp. 194-201, April 2017.

Papers submitted

- [J83] X. Ren, J. Wu, S. Dey and L. Shi, "Attack Allocation on Remote State Estimation in Multi-Systems: Structural Results and Asymptotic Solution", *Automatica*, submitted, July 2016.

- [J84] A.S. Leong, S. Dey and D. Quevedo, “Transmission Scheduling for Remote State Estimation With Energy Harvesting Sensors,” *Automatica*, submitted, August 2016.
- [J85] K. Ding, X. Ren, D. Quevedo, S. Dey and L. Shi, “DoS Attacks on Remote State Estimation with Asymmetric Information,” *IEEE Transactions on Control of Network Systems*, submitted, November 2016.
- [J86] A. Biasson, S. Dey and M. Zorzi, “A Decentralized Optimization Framework for Energy Harvesting Devices,” *IEEE Transactions on Mobile Computing*, submitted, Dec. 2016.
- [J87] A.S. Leong, D. Quevedo, D. Dolz and S. Dey, “Remote State Estimation over Packet Dropping Links in the Presence of an Eavesdropper,” *IEEE Transactions on Automatic Control*, submitted, February 2017.

Conference Papers

- [C1] V. Krishnamurthy, S. Dey and J. P. LeBlanc, “Blind Equalization of IIR Channels using Hidden Markov Models”, *Proc. IEEE International Symposium of Information Theory*, pp. 354, Trondheim, July 1994.
- [C2] S. Dey, V. Krishnamurthy and T. Salmon-Leagagneur, “Maximum Likelihood Estimation of Time Series with Markov Regime”, *Proc. of the 33rd IEEE Conference on Decision and Control*, pp. 2856-2857, Orlando, Florida, December 1994.
- [C3] S. Dey and J. B. Moore, “Risk-sensitive filtering and smoothing via Reference Probability Methods”, *Proc. of the American Control Conference*, Vol. 1, pp. 129-133, Seattle, June 1995.
- [C4] J. B. Moore, R.J. Elliott and S. Dey, “Risk-sensitive Generalizations of Minimum Variance Estimation and Control,” *Proc. of the IFAC Symposium on Nonlinear Control System Design (NOLCOS)*, Vol. 2, pp. 465-470, California, June 1995.
- [C5] S. Dey and J. B. Moore, “Risk-sensitive dual control,” *Proc. of 34th IEEE Conf. on Decision and Control*, pp. 1042-1047, New Orleans, December 1995.
- [C6] R. K. Boel, J. B. Moore and S Dey, “Geometric Convergence of Filters for Hidden Markov Models”, *Proc. of 34th IEEE Conf. on Decision and Control*, pp. 69-74, New Orleans, December 1995.
- [C7] R. J. Elliott, J. B. Moore and S. Dey, “Risk-sensitive maximum likelihood sequence estimation,” *Proc. 13th IFAC World Congress*, Vol. J, pp. 191-196, San Francisco, July 1996.
- [C8] S. Dey and J. B. Moore, “Topics in discrete-time risk-sensitive estimation and control,” *MTNS 1996*, St. Louis, presented.
- [C9] S. Dey and J. B. Moore, “Finite-dimensional risk-sensitive filters and smoothers for nonlinear discrete-time systems,” *MTNS 1996*, St. Louis, presented.
- [C10] S. Dey and J. B. Moore, “On finite-dimensional risk-sensitive estimation,” *Proc. International Symposium on Signal Processing and its Applications*, vol. 2, pp. 849-852, August 1996, Gold Coast, Australia.
- [C11] C. D. Charalambous and S. Dey, “New finite-dimensional risk-sensitive filters”, *CD-ROM Proc. American Control Conf.*, Albuquerque, New Mexico, June 1997.

- [C12] S. Dey, R. J. Elliott and J. B. Moore, "Finite-dimensional risk-sensitive estimation for continuous-time nonlinear systems", *CD-ROM Proc. European Control Conference*, Brussels, July 1997.
- [C13] L. Shue, B. D. O. Anderson and S. Dey, "Exponential Stability of filters and smoothers for hidden Markov models," *CD-ROM Proceedings of the 4th European Control Conferences*, Brussels, July 1997.
- [C14] S. Dey and C. D. Charalambous, "On asymptotic stability of continuous-time risk-sensitive filters with respect to initial conditions," *CD-ROM Proc. ISAC, WAC '98*, Anchorage, Alaska, May 1998.
- [C15] Louis Shue, B. D. O. Anderson and S. Dey, "On steady-state properties of certain max-plus products," *CD-ROM Proc. American Control Conference*, Philadelphia, June 1998.
- [C16] S. Dey and S. I. Marcus, "A framework for mixed estimation for hidden Markov models", *Proc. 37th IEEE CDC*, pp. 3473-3478, Tampa, December 1998.
- [C17] S. Dey and S. I. Marcus, "Change Detection for Markov modulated time series," *Proc. of IDC'99*, pp.21-24, Adelaide, Australia, February 1999.
- [C18] S. Dey and C. D. Charalambous, "Discrete-time risk-sensitive filters for non-Gaussian initial conditions and their ergodicity properties", *Proc. American Control Conference*, pp. 4403-4407, San Diego, USA, June 1999.
- [C19] L. Shue, B. D. O. Anderson, F. De Bruyne and S. Dey, "Remarks on filtering error due to quantisation of a 2-state hidden Markov model," *Proc. of the CDC 1999*, pp. 4123-4124, Phoenix, December 1999.
- [C20] J. S. Baras and S. Dey, "Adaptive classification based on compressed data using learning vector quantization", *Proc. of the CDC 1999*, pp. 3677-3682, Phoenix, December 1999.
- [C21] S. Dey, "Reduced-complexity filtering for partially observed nearly completely decomposable Markov chains," *CD-ROM Proc. Mathematical Theory of Networks and Systems*, Perpignan, France, June 2000.
- [C22] F. De Bruyne and S. Dey, "Change Detection in Closed-Loop Operating Plants and its Application to Adaptive Control," *Proc. American Control Conference*, pp. 2169-2173, Chicago, June 2000,
- [C23] R. Jana and S. Dey, "Mobile Capacity Enhancement using Unequally Spaced Antenna Arrays," *Proc. of IEEE VTC 2000*, pp. 1215-1219, May 2000, Tokyo, Japan.
- [C24] R. Jana and S. Dey, "Mobile Capacity Optimization for Widely Spaced Antenna Arrays," *CD-ROM Proc. IEEE International Conference on Third Generation Wireless Communications*, Silicon Valley, USA, June 2000.
- [C25] L. Shue and S. Dey, "Reduced-complexity smoothing for hidden Markov models," *Proceedings of the IEEE CDC*, pp. 4697-4702, Sydney, Australia, December 2000.
- [C26] N. Bui and S. Dey, "Stochastic power control in CDMA with Markov fading channels," *Proc. IEEE International Conference on Third Generation Wireless and Beyond*, pp. 326-331, San Francisco, June 2001.
- [C27] V. Krishnamurthy and S. Dey, "Reduced-complexity estimation for Poisson processes modulated by nearly completely decomposable Markov chains," *Proc. of IEEE International Symposium on Information Theory*, pp. 207, June 2001, Washington D.C.

- [C28] N. Bui and S. Dey, "Optimal power control in CDMA over Markov fading channels," *Proc. of IEEE International Symposium on Information Theory*, accepted for publication, June-July 2002, Lausanne, Switzerland.
- [C29] G. Nair, S. Dey and R. J. Evans, "Communication-limited stabilizability of jump Markov linear systems," *CD ROM Proc. Mathematical Theory of Networks and Systems (MTNS)*, Southbend, USA, August 2002.
- [C30] V. Krishnamurthy and S. Dey, "Reduced-complexity spatio-temporal image-based tracking of maneuvering targets," *Proceedings of the 5th Intl. Conference on Information Fusion*, vol. 1, pp. 743-750, Annapolis, Maryland, USA, June 2002.
- [C31] G. Yin and S. Dey, "Hybrid filters modulated by Markov chains with two time scales," *Proceedings of the IEEE Conference on Decision and Control*, pp. 3573-3578, Las Vegas, USA, December 2002.
- [C32] J. Papandriopoulos, J. Evans and S. Dey, "Iterative power control and multiuser detection with outage probability constraints", *Proc. ICC 2003*, vol. 4, pp. 2509-2513, Anchorage, May 2003.
- [C33] J. Papandriopoulos, J. Evans and S. Dey, "Achieving outage probability specifications through power control and multiuser detection," to appear, *Proc. of the Australian Communication Theory Workshop*, Melbourne, February 2003.
- [C34] S. Dey and F.A. Galati, "Information theoretic quantiser design in decentralized estimation for hidden Markov models", *Proc. of ICASSP 2003*, volume 6, pp. 749-752, Hong Kong, April 2003.
- [C35] J. Papandriopoulos, J. Evans and S. Dey, "Optimal power control in CDMA networks with constraints on outage probability," *Proc. of the Wi'Opt 2003: Modelling and optimization in mobile, ad-hoc and wireless networks*, to appear, Sophia-Antipolis, France, March 2003.
- [C36] S. Dey and F. Vasquez-Abad, "Smart quantizers for recursive parameter estimation of hidden Markov models," *Proc. of the Sixth Baiona Workshop on Signal Processing for Communications*, pp. 241-245, Baiona, Spain, 2003.
- [C37] S. Dey and J.S. Evans, "Optimal power control in wireless data networks with outage-based utility guarantees," *Proc. of IEEE CDC 2003*, pp. 570-575, Maui, Hawaii, December 2003.
- [C38] G.N. Nair, S. Dey and R.J. Evans, "Infimum data rates for stabilizing Markov jump linear systems," *Proc. of IEEE CDC 2003*, pp. 1176-1181, Maui, Hawaii, December 2003.
- [C39] J. Papandriopoulos, J.S. Evans and S.Dey, "Outage-based Power Control for Generalized Multiuser Fading Channels," *Proceedings of IEEE International Conference on Communications*, vol.1, pp. 327-331, Paris, France, June 2004.
- [C40] J. Papandriopoulos, J.S. Evans, and S. Dey, "Distributed Power Control for Cellular MIMO Systems with Temporal and Spatial Filtering," *Proceedings of the Australian Communications Theory Workshop*, pp. 164-175, Newcastle, Australia, Feb. 2004.
- [C41] S. Dey and J.S. Evans, "Optimal Power Control over Multiple Time-scale Fading Channels with Service Outage Constraints," *Proceedings of WiOpt'04: Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks*, pp. 254-263, Cambridge, U.K., Mar. 2004.

- [C42] J. Papandriopoulos, J.S. Evans and S.Dey, "Outage-based Power Control for Generalized Multiuser Fading Channels," *Proceedings of IEEE International Conference on Communications*, vol.1, pp. 327-331, Paris, France, June 2004.
- [C43] T. Alpcan, T. Basar and S. Dey, "A Power Control Game Based on Outage Probabilities for Multicell Wireless Data Networks", *Proc. American Control Conference*, pp. 1661-1666, Boston, June 2004.
- [C44] M. Huang and S. Dey, "Distributed State Estimation for Hidden Markov Models by Sensor Networks with Dynamic Quantization", *Proc. ISSNIP 2004*, pp. 355-360, Melbourne, December 2004.
- [C45] A.S. Leong, J.S. Evans and S. Dey, "Power control and multiuser diversity in multiple access channels with two time scale fading", to appear, *Proc. 3rd Intl. Symposium on Modelling and Optimization in Mobile, Ad-Hoc and Wireless Networks*, pp. 86-95, April 2005.
- [C46] M. Huang and S. Dey, "Distributed State Estimation for Hidden Markov Models with Dynamic Quantization and Rate Allocation", *CD-ROM Proc. of IFAC 2005*, 6 pages, July 2005, Prague.
- [C47] K. Prince, B.S. Krongold and S. Dey, "A framework for Efficient Rate-Power Allocation for OFDM in a Composite-Fading Environment", *Proc. of IEEE Conference on Communications*, vol.4, pp. 2558-2562, May 2005, Seoul, Korea.
- [C48] K. Prince, B.S. Krongold and S. Dey, "OFDM Transmission Resource Optimization in HMM-Fading Wireless Channels," *Proc. IASTED International Conference on Communication Systems and Applications*, pp. 16-21, Banff, Alberta, Canada, July 2005.
- [C49] M. Huang and S. Dey, "Dynamic Quantization for multi-sensor estimation over bandlimited fading channels with fusion centre feedback", *Proc. IFAC Workshop on System Identification (2006)*, in press, Newcastle, Australia, August 2005.
- [C50] J. Papandriopoulos, S. Dey and J.S. Evans, "Distributed cross layer optimization of MANETs in composite fading", *Proc. IEEE International Conference on Communications (ICC)*, vol.9 pp. 3879-3884, Istanbul, Turkey, June 2006.
- [C51] M. Huang and S. Dey, "Joint Rate/Power Adaptation and Buffer Management in Wireless Data Relay Networks," *Proc. 2006 American Control Conference*, pp. 6097-6102, Minneapolis, USA, June 2006.
- [C52] J.C.F. Li and S. Dey, "Lifetime optimization for wireless sensor networks with outage probability constraints", *CD-ROM Proc. European Wireless Conference 2006 (7 pages)*, Athens, Greece, April 2006.
- [C53] S. Dey and J.S. Evans, "Outage capacity and optimal power allocation for multiple time-scale parallel fading channels", *CD-ROM Proc. European Wireless Conference 2006 (7 pages)*, Athens, Greece, April 2006.
- [C54] J.C.F. Li and S. Dey, "Lifetime optimization for multi-hop wireless sensor networks with rate-distortion constraints," *CD-ROM Proc. Seventh IEEE International Workshop on Signal Processing Advances in Wireless Communications (5 pages)*, Cannes, France, July 2006.
- [C55] M. Huang and S. Dey, "Kalman filtering with Markovian packet loss and stability criteria," *Proc. IEEE Conference on Decision and Control*, pp. 5621-5626, San Diego, USA, December 2006.

- [C56] K. Prince and B.S. Krongold and S. Dey, “Efficient Rate-Power Allocation for OFDM in a Realistic Fading Environment,” *Proc. IEEE VTC (Spring) 2007*, pp. 3076-3080, Dublin, Ireland, April 2007.
- [C57] J.C.F. Li, S. Dey and J.S. Evans, “Maximal lifetime rate and power allocation for sensor networks with data distortion constraints,” *Proc. IEEE Conference on Communications (ICC) 2007*, pp. 3678-3685, Glasgow, Scotland, June 2007.
- [C58] K. Chakrabarty, S. Dey and M. Franceschetti, “On Outage Capacity of MIMO Poisson Fading Channels,” *Proc. IEEE International Symposium on Information Theory*, pp. 2421-2425, Nice, France, June 2007.
- [C59] P. Minero, M. Franceschetti, S. Dey and G. Nair, “Towards feedback stabilization over fading channels,” (invited paper), *CD-ROM Proc. CONCOM Workshop (in conjunction with Wi’Opt)*, pp. 1-5, Limasol, Cyprus, April 2007.
- [C60] P. Minero, M. Franceschetti, S. Dey and G. Nair, “Data rate theorem for stabilization over fading channels,” *Proc. 45th Annual Allerton Conference*, 8 pages, Urbana-Champaign, Illinois, USA, September 2007.
- [C61] N. Ghasemi and S. Dey, “Power-Efficient Dynamic Quantization for Multisensor HMM State Estimation over Fading Channels,” *Proc. Third International Symposium on Communications, Control and Signal Processing* pp. 1553-1558, St Julians, Malta, March 2008.
- [C62] J.C-F. Li and S. Dey, “Delay Constrained Achievable Rate Maximization in Wireless Relay Networks with Causal Feedback,” *Proc. of The Ninth IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, pp. 456-460, Recife, Brazil, July 2008.
- [C63] K. Chakraborty, S. Dey and M. Franceschetti, “Service outage based power and rate control for Poisson fading channels,” *Proc. IEEE Intl. Symp. Inf. Theory (ISIT)*, pp. 619-623, Toronto, Canada, July 2008.
- [C64] Chih-Hong Wang and S. Dey, “Power Allocation for Distortion Outage Minimization in Clustered Wireless Sensor Networks,” *Proc. International Wireless Communications and Mobile Computing Conference (IWCMC)*, pp. 395-400, Crete, August 2008.
- [C65] A. Leong, S. Dey and J.S. Evans, “Power efficient state estimation using multiple sensors,” *Proc. Intl. Symposium of Information Theory and its Applications (ISITA)*, pp. 1-6, Auckland, New Zealand, December 2008.
- [C66] S. Dey, A.S. Leong and J.S. Evans, “On Kalman filtering with faded measurements,” *Proc. Forty-Sixth Annual Allerton Conference on Communication, Control, and Computing*, pp. 607-614, Monticello, Illinois, USA, September 2008.
- [C67] J.C-F. Li and S. Dey, “Optimum Power Allocation for Expected Achievable Rate Maximization with Outage Constraints in Cooperative Relay Networks,” *Proc. IEEE WCNC 2009*, pp. 1-6, Budapest, April 2009.
- [C68] A.S.C. Leong, S. Dey, G. Nair and P. Sharma, “Outage Minimization for State Estimation Using Multiple Sensors”, *Proc. IFAC Workshop on Networked Estimation & Control (NecSys) 2009*, 5 pages, Venice, September 2009.
- [C69] Yuan Yuan He and S. Dey, “Efficient Algorithms for Outage Minimization in Parallel Fading Channels with Limited Feedback,” *Proc. 47th Annual Allerton Conference on Communication, Control and Computing*, pp. 762-770, Monticello, Illinois, USA, September 2009.

- [C70] N. Ghasemi and S. Dey, "Power Constrained Dynamic Quantizer Design for Multisensor Estimation of HMMs with Unknown Parameters," *Proc. IEEE Conference on Decision and Control (CDC) 2009*, pp. 920-927, Shanghai, China, December 2009.
- [C71] Chih-Hong Wang and S. Dey, "Distortion Outage Minimization in Rayleigh Fading using Limited Feedback," *Proc. IEEE Global Telecommunications Conference (GLOBECOM) 2009*, pp. 1-8, Honolulu, Hawaii, USA, November-December 2009.
- [C72] A.S.C. Leong and S. Dey, "Multi-Sensor Diversity in Decentralized Estimation," *CD-ROM Proc. IEEE International Symposium on Communication, Control and Signal Processing (ISCCSP) 2010*, 6 pages, Limassol, Cyprus, March 2010.
- [C73] A.S.C. Leong and S. Dey, "On Diversity Schemes in Decentralized Estimation", *Proc. IEEE International Workshop on Signal Processing Advances in Wireless Communications*, 5 pages, Marrakech, Morocco, June 2010.
- [C74] N. Ghasemi, S. Dey and J.S. Baras, "Stochastic Average Consensus Filter for Distributed HMM Filtering: Almost-Sure Convergence," *Proc. 2nd IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys 2010)*, 8 pages, Annecy, France, September 2010.
- [C75] Y.Y. He, S. Dey and V. Raghavan, "Spectrum Sharing in Cognitive Radio with Quantized Channel Information," *Proc. MILCOM 2010*, pp. 1672-1677, San Jose, USA, October 2010.
- [C76] A. Limmanee, S. Dey and J.S. Evans, "Service-outage Capacity Maximization in Cognitive Radio," *Proc IEEE ICC 2011*, 6 pages, June 2011, Kyoto, Japan.
- [C77] E. Nekouei, H. Inaltekin and S. Dey, "Throughput Scaling in Cognitive Multiple Access Networks with Power and Interference Constraints," *Proc IEEE ICC 2011*, 6 pages, June 2011, Kyoto, Japan.
- [C78] Y.Y. He and S. Dey, "Throughput maximization in cognitive radio with limited feedback in the interference-limited regime," *Proc. European Wireless 2011*, pp. 1-8, Vienna, Austria, April 2011.
- [C79] D. Quevedo, A. Ahlen, A.S. Leong and S. Dey, "On Kalman Filtering with Fading Wireless Channels Governed by Power Control," *Proc. IFAC World Congress 2011*, 6 pages, Milan, Italy, August 2011.
- [C80] A.S. Leong, S. Dey and J. Anand, "Optimal LQG control over continuous fading channels," *Proc. IFAC World Congress 2011*, 6 pages, Milan, Italy, August 2011.
- [C81] J.M. Scarlett, J.S. Evans and S. Dey, "How much training is needed in fading multiple access channels," *Proc. Intl. Symposium in Wireless Communication Systems (ISWCS) 2011*, pp. 527-531, Aachen, Germany, November 2011.
- [C82] Y.Y. He and S. Dey, "Outage Minimization in Cognitive Radio with Limited Feedback," *Proc. Australian Communications Theory 2012*, pp. 84-89, Wellington, New Zealand, February 2012.
- [C83] A.S. Leong, S. Dey and G. Nair, "On Multi-Sensor Linear State Estimation Under High Rate Quantization," *Proc. International Symposium on Communications, Control and Signal Processing (ISCCSP) 2012*, 6 pages, Rome, Italy, May 2012.

- [C84] E. Nekouei, T. Alpcan and S. Dey, "An Outage Based Game Design for Cognitive Radio," *Proc. International Symposium on Wireless Communication Systems (ISWCS) 2012*, pp. 1034-1038, Paris, France, August 2012.
- [C85] M. Wang, F. Li, J. Evans and S. Dey, "Dynamic Multi-user MIMO Scheduling with Limited Feedback in LTE-Advanced," *Proc. 23rd IEEE Symposium on Personal, Indoor and Mobile Radio Communications*, pp. 1627 - 1632, Sydney, Australia, September 2012.
- [C86] A.S. Leong, S. Dey and G. Nair, "Multi-Sensor Linear State Estimation Under High Rate Quantization," *Proc. 3rd IFAC Workshop on Distributed Estimation and Control in Networked Systems*, pp. 115-120, Santa Barbara, USA, September 2012.
- [C87] A.S.C Leong and S. Dey, "Power Allocation for Error Covariance Minimization in Kalman Filtering Over Packet Dropping Links," *Proc. IEEE Conference on Decision and Control (CDC) 2012*, pp. 3335 - 3340, Maui, Hawaii, USA, December 2012.
- [C88] E. Nekouei, H. Inaltekin and S. Dey, "Asymptotically Optimal Channel Feedback Protocol Design for Cognitive Multiple Access Channels," *Proc. of IEEE Globecom 2012*, pp. 2196 - 2202, Anaheim, California, USA, December 2012.
- [C89] Y.Y. He and S. Dey, "Weighted Sum Rate Maximization For Cognitive MISO Broadcast Channel: Large System Analysis," *Proc. IEEE ICASSP 2013*, pp. 4873 - 4877, Vancouver, British Columbia, Canada, May 2013.
- [C90] E. Nekouei, H. Inaltekin and S. Dey, "Distributed Cognitive Multiple Access Networks: Power Control, Scheduling and Multiuser Diversity," *Proc. International Symposium on Information Theory (ISIT) 2013*, pp. 1665 - 1669, Istanbul, Turkey, July 2013.
- [C91] M. Nourian, A.S.C. Leong and S. Dey, "Optimal Energy Allocation for Kalman Filtering Over Packet Dropping Links with Energy Harvesting Constraints," *Proc. 4th IFAC Workshop on Distributed Estimation and Control in Networked Systems*, in press, Koblenz, Germany, September 2013.
- [C92] S. Dey, A. Chiuso and L. Schenato, "Remote estimation subject to packet loss and quantization noise," *Proc. of 52nd IEEE Conference on Decision and Control (CDC)*, pp. 6097 - 6104, Florence, Italy, Dec. 2013.
- [C93] A.S. Leong, S. Dey and G.N. Nair, "A Quantized Filtering Scheme for Multi-Sensor Linear State Estimation with Non-Detectability at the Sensors and Fusion Center Feedback," *Proc. of 52nd IEEE Conference on Decision and Control (CDC)*, pp. 5294 - 5300, Florence, Italy, Dec. 2013.
- [C94] T. Alpcan and S. Dey, "An Information-Theoretic Analysis of Distributed Resource Allocation," *Proc. of 52nd IEEE Conference on Decision and Control (CDC)*, pp. 7327 - 7332, Florence, Italy, Dec. 2013.
- [C95] K. He, J.S. Evans and S. Dey, "Secrecy Rate Maximization For Cooperative Overlay Cognitive Radio Networks with Artificial Noise," *Proc. IEEE International Conf. on Communications*, pp. 1663 - 1668, Sydney, Australia, June 2014.
- [C96] Y Li, D. E. Quevedo, V. Lau, S. Dey and L. Shi, "Transmission Power Scheduling for Energy Harvesting Sensor in Remote State Estimation," *Proc. IFAC World Congress 2014*, 6 pages, Cape Town, South Africa, August 2014.

- [C97] D. Ciunzo, P. Salvo Rossi and S. Dey, “Massive MIMO meets Decision Fusion: Decode-and-Fuse vs. Decode-then-Fuse,” *Proc. 2014 IEEE 8th Sensor Array and Multichannel Signal Processing Workshop (SAM)*, pp. 265 - 268, La Coruna, Spain, June 2014.
- [C98] X. Guo, A.S. Leong and S. Dey, ‘Power allocation for distortion minimization in distributed estimation with security constraints,” *Proc. 2014 IEEE 15th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, pp. 299 - 303, June 2014, Toronto, Canada.
- [C99] A. Shirazina and S. Dey, “Optimized Compressed Sensing Matrix Design for Noisy Communication Channels,” *Proc IEEE Intl. Conf. of Communications (ICC) 2015*, pp. 4547- 4552, June 2015, London, UK.
- [C100] S. Knorn, S. Dey, A. Ahlén and D. Quevedo, “Multi-Sensor Estimation Using Energy Harvesting and Energy Sharing,” *Proc IEEE Intl. Conf. of Communications (ICC) 2015*, pp. 4229-4234, June 2015, London, UK.
- [C101] A. Shirazina, S. Dey, D. Ciunzo and P. Salvo Rossi, “Massive MIMO for Decentralized Estimation over Coherent Multiple Access Channels,” *Proc. IEEE Sig. Proc. Adv. in Wireless Commun. (SPAWC)*, pp. 241-245, June 2015.
- [C102] A. Leong, S. Dey and D. Quevedo, “On the Optimality of Threshold Policies in Event Triggered Estimation with Packet Drops,” *Prof. of European Control Conference (ECC) 2015*, pp.927-933, July 2015, Linz, Austria.
- [C103] S. Dey, A. Chiuso and L. Schenato, “Linear Encoder-Decoder-Controller Design over Channels with Packet Loss and Quantization Noise,” *Prof. of European Control Conference (ECC) 2015*, pp. 934-939, July 2015, Linz, Austria.
- [C104] S. Knorn and S. Dey, “Optimal Energy Allocation for Linear Control over a Packet-Dropping Link with Energy Harvesting Constraints,” *Proc. of 5th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys) 2015*, 6 pages, Philadelphia, USA, September 2015.
- [C105] S. Knorn and S. Dey, “Optimal Sensor Transmission Energy Allocation for Linear Control Over a Packet Dropping Link with Energy Harvesting,” *Proc. of 54th IEEE Conference on Decision and Control (CDC)*, pp. 1199-1204, Osaka, Japan, Dec. 2015.
- [C106] Y. Li, D. Quevedo, S. Dey and L. Shi, “Fake-Acknowledgment Attack on ACK-Based Sensor Power Schedule for Remote State Estimation,” *Proc. of 54th IEEE Conference on Decision and Control (CDC)*, pp. 5795-5800, Osaka, Japan, Dec. 2015.
- [C107] A. Shirazinia and S. Dey, “On Linear Encoder-Decoder Design for Multi-sensor State Estimation Subject to Quantization Noise and Channel Erasure,” *Proc. of IEEE 17th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, 6 pages, July 3-6, Edinburgh, 2016.
- [C108] S. Biswas, A. Shirazinia and S. Dey, “Sensing Throughput Optimization in Cognitive Fading Multiple Access Channels with Energy Harvesting Secondary Transmitters,” *Proc. of EUSIPCO 2016*, 5 pages, Budapest, Hungary, August-September 2016.
- [C109] A.S. Leong, S. Dey and D. E. Quevedo, “Optimal Transmission Policies for Variance Based Event Triggered Estimation With an Energy Harvesting Sensor,” *Proc. of EUSIPCO 2016*, 5 pages, Budapest, Hungary, August-September 2016.

- [C110] K. Ding, D. Quevedo, S. Dey and L. Shi, “A Secure Cross-Layer Design for Remote Estimation under DoS Attack,” *Proc. of 55th IEEE Conference on Decision and Control*, in press, Las Vegas, USA, Dec. 2016.