

Praneeth Narayanamurthy

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Education

B.Tech., Electrical and Electronics Engineering, National Institute of Technology Karnataka, 2014.
Thesis: *Efficient-Estimation of Lightning Parameters using Genetic Algorithms*.

Ph.D., Electrical Engineering, Iowa State University, 2016 – 2020 (expected).

Work Experience

Project Assistant: July 2014 – Dec. 2015, Indian Institute of Science, Bangalore.

Graduate Courses

Probability and Random Processes, Linear Algebra, Convex Optimization, Detection and Estimation Theory, Principles of Data Science, Design and Analysis of Algorithms, Deep Machine Learning, Statistical Machine Learning

Skills

Proficient: MATLAB, \LaTeX ,

Intermediate: Python, C++, Perl, Bash

Beginner: Julia, Scheme

Honors and Awards

Certificate of Excellence from Central Board of Secondary Education for securing 100% grade in Mathematics and Sanskrit in 10th standard – 2008

Indian National Mathematical Olympiad Awardee – 2009

Finalist of National GE Edison Challenge – 2013

Publications and Pre-Prints

Journals and Pre-Prints

1. Nearly Optimal Robust Subspace Tracking,
Praneeth Naryanamurthy and Namrata Vaswani,
under review, IEEE Transactions on Information Theory (Mar. 2018).

2. Provable Dynamic Robust PCA or Robust Subspace Tracking,
Praneeth Narayanamurthy and Namrata Vaswani,
revised and re-submitted, IEEE Transactions on Information Theory (Oct. 2017).
3. Finite Sample Guarantees for PCA in non-isotropic and Data-Dependent Noise,
Namrata Vaswani and Praneeth Narayanamurthy,
manuscript.
4. Robust PCA, Subspace Learning, and Tracking,
Namrata Vaswani, Thierry Bouwmans, Sajid Javed and Praneeth Narayanamurthy,
IEEE Signal Processing Magazine (July 2018).
5. Static and Dynamic Robust PCA and Matrix Completion: A review,
Namrata Vaswani, and Praneeth Narayanamurthy,
Proceedings of IEEE (August 2018).

Conference and Workshops

1. Nearly Optimal Robust Subspace Tracking,
Praneeth Narayanamurthy and Namrata Vaswani, ICML, 2018.
2. Provable Dynamic Robust PCA or Robust Subspace Tracking,
Praneeth Narayanamurthy and Namrata Vaswani, ISIT, 2018.
3. Nearly Optimal Robust Subspace Tracking: A Unified Approach,
Praneeth Narayanamurthy and Namrata Vaswani, DSW, 2018.
4. PCA in Sparse Data-Dependent Noise,
Namrata Vaswani and Praneeth Narayanamurthy, ISIT, 2018.
5. A Fast and Memory-Efficient Algorithm for Robust PCA (MERoP), **Praneeth Narayanamurthy and Namrata Vaswani**, ICASSP, 2018
6. Finite Sample Guarantees for PCA in non-isotropic and Data-Dependent Noise,
Namrata Vaswani and Praneeth Narayanamurthy, Allerton 2017
7. Robust PCA and Robust Subspace Tracking: A comparative Evaluation,
Sajid Javed, Praneeth Narayanamurthy, Namrata Vaswani and Thierry Bouwmans, SSP, 2018.
8. Provably correct Robust Subspace Tracking: A Correlated-PCA-based Approach,
Brian Loos, Namrata Vaswani and Praneeth Narayanamurthy, NIPS workshop on LHDS, 2016.
9. Efficient Resampling of speech signals in Shift-Invariant Spaces,
Gutta Sreedevi, Praneeth Narayanamurthy, and Chandra Sekhar Seelamantula, NCC 2016.
10. Dictionary-Learning based Post-Filter for HMM-based Speech Synthesis,
Praneeth Narayanamurthy and Chandra Sekhar Seelamantula, TENCON 2015.

Talks

1. MEDRoP: Memory Efficient Dynamic Robust PCA
Microsoft Research India
ECE Department, Indian Institute of Science, Bangalore
December 2017

Last updated: May 31, 2018