Praneeth Narayanamurthy

3133 Coover Hall
Dept. Electrical and Computer Engineering
Iowa State University
Ames, IA 50010

Phone: (515) 735-8303
Email: pkurpadn@iastate.edu
Homepage: https://praneethmurthy.github.io

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

Electrical Engineering: Probability and Random Processes, Convex Optimization, Detection and Estimation Theory, Principles of Data Science, Deep Machine Learning, Statistical Machine Learning

Computer Science: Design and Analysis of Algorithms, Machine Learning

Mathematics: Linear Algebra, Numerical Analysis-II

Skills

Proficient: MATLAB, LaTeX,

Intermediate: Python, C++, Perl, Bash

Beginner: Julia, Scheme

Honors and Awards

Finalist of National GE Edison Challenge – 2013

Indian National Mathematical Olympiad Awardee – 2009

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

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*,
under review, `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` (May 2017).

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 (Aug. 2018).`

Conference and Workshops

1. Nearly Optimal Robust Subspace Tracking,
Praneeth Naryanamurthy *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 Lois, 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: June 3, 2018