



Priyanka Raina

Assistant Professor of Electrical Engineering

 Curriculum Vitae available Online

CONTACT INFORMATION

- **Administrator**

Julie Kline - EE Faculty Administrator

Email klinej@stanford.edu

Tel (650) 723-4539

Bio

BIO

Priyanka Raina is an Assistant Professor in Electrical Engineering at Stanford University. Previously, she was a Visiting Research Scientist in the Architecture Research Group at NVIDIA Corporation. She received her Ph.D. degree in 2018 and S.M. degree in 2013 in Electrical Engineering and Computer Science from MIT and her B.Tech. degree in Electrical Engineering from Indian Institute of Technology (IIT) Delhi in 2011. Priyanka's current research interests are designing energy-efficient and high-performance circuits and systems for image, vision and machine learning applications on mobile devices, integrating emerging non volatile memory technologies in accelerator architectures, and creating frameworks for improving hardware/software system design productivity.

ACADEMIC APPOINTMENTS

- Assistant Professor, Electrical Engineering

HONORS AND AWARDS

- Best Young Scientist Paper Award, ESSCIRC 2016 (2017)
- ISSCC Student Research Preview Award, ISSCC 2016 (2017)
- Bimla Jain Medal, IIT Delhi (2011)
- Institute Silver Medal, IIT Delhi (2011)
- Gold Medal at Indian National Chemistry Olympiad, InChO (2007)

PROFESSIONAL EDUCATION

- Ph.D., Massachusetts Institute of Technology (MIT) , Electrical Engineering and Computer Science (2018)
- S.M., Massachusetts Institute of Technology (MIT) , Electrical Engineering and Computer Science (2013)
- B.Tech., Indian Institute of Technology (IIT) Delhi , Electrical Engineering (2011)

LINKS

- <https://stanfordaccelerate.github.io>: <https://stanfordaccelerate.github.io>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

For Priyanka's research please visit her group research page at <https://stanfordaccelerate.github.io>

Teaching

COURSES

2019-20

- Advanced VLSI Circuit Design: EE 371 (Spr)
- Design Projects in VLSI Systems: EE 272 (Win)
- Introduction to VLSI Systems: EE 271 (Aut)

2018-19

- Design Projects in VLSI Systems: EE 272 (Win)
- Introduction to VLSI Systems: EE 271 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Nikhil Bhagdikar, Alex Carsello, Matthew Feldman, Taeyoung Kong, Qiaoyi(Joey) Liu, Ankita Nayak, Gedeon Nyengele, Alex Rucker, Daniel Villamizar

Master's Program Advisor

Zainab Khan, Siyu Liu, Namit Mishra, Vinh Nguyen, Elias Stein, Eric Yang

Publications

PUBLICATIONS

- **Timeloop: A Systematic Approach to DNN Accelerator Evaluation**
Parashar, A., Raina, P., Shao, Y., Chen, Y., Ying, V. A., Mukkara, A., Venkatesan, R., Khailany, B., Keckler, S. W., Emer, J., IEEE
IEEE.2019: 304–15
- **An Energy-Scalable Accelerator for Blind Image Deblurring**
Raina, P., Tikekar, M., Chandrakasan, A. P.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2017: 1849–62
- **A 0.6V 8mW 3D Vision Processor for a Navigation Device for the Visually Impaired**
Jeon, D., Ickes, N., Raina, P., Wang, H., Rus, D., Chandrakasan, A., IEEE
IEEE.2016: 416–U584
- **An Energy-Scalable Accelerator for Blind Image Deblurring**
Raina, P., Tikekar, M., Chandrakasan, A. P., IEEE
IEEE.2016: 113–16
- **Reconfigurable Processor for Energy-Efficient Computational Photography**
Rithe, R., Raina, P., Ickes, N., Tenneti, S. V., Chandrakasan, A. P.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2013: 2908–19
- **Reconfigurable Processor for Energy-Scalable Computational Photography**
Rithe, R., Raina, P., Ickes, N., Tenneti, S. V., Chandrakasan, A. P., IEEE
IEEE.2013: 164–U972

PRESENTATIONS

- Low-Power Processor for Real-Time Motion Magnification in Videos - Microsystems Annual Research Conference
- Circuits & Systems for Computational Imaging on Mobile Devices - Rising Stars Workshop
- Energy-Scalable Accelerator for Blind Image Deblurring - ESSCIRC
- Energy-Scalable Accelerator for Blind Image Deblurring - ISSCC Student Research Preview
- Energy-Scalable Accelerator for Blind Image Deblurring - Microsystems Annual Research Conference