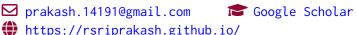
R Sri Prakash, Ph.D.

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Education

♦ **IIT Bombay**, Mumbai, India. 2018 - 23

Ph.D., Electrical Engineering, CGPA: 8.28.

Dissertation: Resource allocation for service hosting at the edge.

Advisors: Prof. Sharayu Moharir and Prof. Nikhil Karamchandani.

♦ **IIT Bombay**, Mumbai, India. 2016 - 18

M.Tech., Electrical Engineering, CGPA: 8.34.

Thesis: Cahing in distributed networks.

Advisor: Prof. Sharayu Moharir.

♦ **MANIT Bhopal**, Bhopal, India. 2011 - 15

B.Tech., Electronics & Telecommunication Engineering, CGPA: 7.66.

Research Interests

As a researcher with expertise in mathematical modeling of stochastic systems and online learning, I specialize in resource allocation for service hosting at edge. I utilize a combination of probability and optimization techniques in my work, and my notable contributions include:

- Providing *performance guarantees* in terms of regret for online policies in edge service hosting, as well as determining the fundamental lower bound on the regret of any online policy.
- Applying the *correlated multi-arm bandit, MDP* framework to the service hosting setting and developing algorithms that exploit the structure of the problem.
- Developing caching policies for *heterogeneous* data in distributed networks.

I am passionate about my work and am constantly seeking new opportunities to further my expertise and expand my knowledge. I am also interested in exploring the fields of **signal processing** and **wireless communications**.

Research Publications

Journals

- 1. R Sri Prakash, Nikhil Karamchandani, and Sharayu Moharir. On the Regret of Online Edge Service Hosting. Performance Evaluation (under review).
- 2. V S Ch Lakshmi Narayana, Mohit Agarwala, **R Sri Prakash**, Nikhil Karamchandani, and Sharayu Moharir. Online Partial Service Hosting at the Edge. ACM ToMPECS (under review).
- 3. Santosh Fatale, **R Sri Prakash**, and Sharayu Moharir. Caching Policies for Transient Data. IEEE Transactions on Communications 2020.

Conferences

- 1. **R Sri Prakash**, Nikhil Karamchandani, and Sharayu Moharir. On the Regret of Online Edge Service Hosting. CCDWN workshop WiOpt 2022.
- 2. R Sri Prakash, Nikhil Karamchandani, and Sharayu Moharir. Best Arm Identification in Sample-path Correlated Bandits. National Conference on Communications 2022. (Best paper award)
- 3. R Sri Prakash, Nikhil Karamchandani, and Sharayu Moharir. Partial Service Caching at the Edge. CCDWN workshop WiOpt 2020.

- 4. Santosh Fatale, **R Sri Prakash**, and Sharayu Moharir. *Caching Policies for Transient Data*. National Conference on Communications 2018.
- 5. **R Sri Prakash**, and Sharayu Moharir. *Caching Static and Transient Data*. poster paper in ACM Mobile Computing and Networking (MobiCom) 2018.

Awards and Achievements

- 2019 ♦ Won 5 minutes **research story telling competition**, Department of Electrical Engineering, IIT Bombay.
- 2016 \diamond **All India Rank 119** out of 152k candidates in *GATE* with *ECE specialization*.

Skills

Languages \diamond Strong reading, writing and speaking competencies for English, Telugu.

Coding ⋄ C++, C, Python, LaTeX.

Tools \diamond MATLAB, Eclipse.

Web Dev ♦ HTML, css.

Teaching Experience

2016 − 21 ♦ **Teaching Assistant** for the following courses.

Theory – Probability and Random Processes (EE 325), Statistical Signal Analysis (EE 601), Communication networks (EE706), Random graphs (EE766).

Laboratory – Digital Signal Processing Lab (EE 352), Communications Lab (EE340).

Relevant Courses

Mathematics Applied Linear Algebra, Statistical Signal Analysis, Optimization Techniques, Real analysis,

Advanced Concentration inequalities, Markov Chains and Queing Systems.

Signal Processing \diamond Digital Signal Processing, Adaptive Signal Processing, Image processing.

Extracurricular

Sports and games \diamond Cricket, Badminton, Swimming, Chess, Carrom.

Positions of responsibility

Maintenance councilor for Hostel 14 IIT Bombay (2018-2019)

References

- Sharayu Moharir, Associate Professor of Electrical Engineering, IIT Bombay. sharayum@ee.iitb.ac.in
- Nikhil Karamchandani, Associate Professor of Electrical Engineering, IIT Bombay. nikhilk@ee.iitb.ac.in